

ELECTRICAL AND ELECTRONICS ENGINEERING

SECTION

SAMPLE



THE ENGINEERING INDEX

JUNE 1964

Published monthly by
Engineering Index, Inc.
345 E. 47th Street
New York, New York 10017

In cooperation with

The Institute of Electrical and Electronics Engineers



THE ENGINEERING INDEX

ELECTRICAL AND ELECTRONICS ENGINEERING SECTION

CONTENTS

Introduction	i
Subscription Rates	iii
Category List	iv
Abstracts	1
Subject Index	9
Author Index	21

INTRODUCTION

Engineering Index has embarked on a program aiming to provide broader, deeper and faster abstracting and indexing services in all the engineering disciplines. These services will include a monthly abstract bulletin with index and semi-annual cumulated indexes, and a central mechanized document retrieval service based on a deep index, which can also be the basis for selective dissemination of information.

Monthly bulletins will be available as a complete service, comprising all engineering disciplines, and also in sections corresponding to individual disciplines. Close liaison will be maintained with the engineering societies representing these respective disciplines.

Pilot Studies

As an initial step toward this goal, a pilot study will be conducted on each of two engineering disciplines, the electrical-electronics field and the plastics field. Liaison has been established with both the Institute of Electrical and Electronics Engineers and the Society of Plastics Engineers to obtain their aid in decisions on breadth of coverage required, depth of indexing desired, and means to obtain faster service in abstracting society-sponsored primary publications. The new Engineering Index publications and services, however, will continue to be world-wide in literature coverage. It is estimated that the electrical-electronics field will involve 20,000 articles per year and the plastics field 10,000 articles per year.

Each section in the pilot study will comprise a list of categories, a compilation of abstracts arranged by categories, a subject index and an author index. The regular Engineering Index publications and services will continue during the pilot studies.

The Samples

To illustrate the format envisioned for the pilot studies, a sample including about 100 abstracts has been compiled for each of the two disciplines. The articles were abstracted and deep-indexed using the EJC-Battelle system of abstracting and coordinate indexing, which is the basis for the deep index stored on tape. From the terms so selected, some

subject headings were chosen for the published version illustrated by the samples. Subject headings may consist of single terms or of the subordinate conjunction of two or more terms.

Following each heading in the subject index will be one or more document or article entries, each comprising a document number and a Notation of Content (NOC), which may be the title or a version of the title believed to be more indicative of the contents of the article.

The document number includes the year, issue, section, category, and accession number in that order, since that is the order in which all abstracts are listed in the complete service. For example the document number, 64-06 A29-05913, means:

year	1964
issue	06 (June)
Section	A Electrical and Electronics Engineering Section
Category	29 Broadcasting and Radio Communications
Accession number . .	05913

Abstracts are listed under categories believed to be appropriate, but it is well known that no category list can be comprised of mutually exclusive categories. Hence, such a grouping is only an aid in browsing, and the listing in any one category cannot be considered as an exhaustive list of articles dealing with that particular category. The category list is tentative and subject to revision with increasing experience.

How To Use The Bulletin

(1) For browsing, scan the list of category headings for those of interest, then turn to the abstract listings where the abstracts are listed under the categories. You can then browse through the abstracts in the categories of interest.

(2) For identifying all the articles dealing with a particular question, follow the steps given below and refer to the illustration:

- (a) Formulate your question in scientific and engineering terms, using alternatives (redundancy).
- (b) Look up these terms in the subject index.
- (c) Some or all of the terms selected will be found as subject headings, followed by a display of Notations of Content (NOC).
- (d) From these NOC's decide which ones can be safely ignored as outside your interests, and look up the abstracts for the others, by using the last part of the document number. Each single or double page spread of abstracts shows year, issue, section, and category in the upper left and upper right, thus bracketing the categories covered in that spread. Abstracts are listed under the appropriate category heading and code. Each abstract is preceded, on a separate line, by the combined code of its section category and accession number. Within a given category, abstracts are listed in order by accession number. Thus the "look up" of abstracts that constitute the output of the subject index is facilitated.

(3) For identifying all articles by a particular author, use the author index, which gives the document numbers directly, and thus leads to the corresponding abstracts.

(4) For obtaining copies of abstracted articles, use the bibliographic information that accompanies each abstract to locate the article in your local library, or to order from Engineering Index.

Illustration of the use of the subject index:

Suppose you wish all the information you can obtain on pulse amplifiers. Under PULSE AMPLIFIERS is document A25-05923. The NOC gives more information about the article and shows it to be relevant to the question. The document number is now found in the abstract section under category 25 with accession number 05923. This article alone may be sufficient for your needs. If, however, you wish to look for other leads, try the more generic term, AMPLIFIERS, under which is listed the article already found and several others. Examination of the NOC's under this heading show that A25-05911, A25-05926, and A31-05714 may possibly be pertinent to the question. Reference to their abstracts shows that the latter reference is quite probably pertinent, and the other two possibly relevant.

This illustrates index flexibility in allowing you to stop after identifying a document directly related to your specific question, or to continue using the index to identify documents in peripheral areas of decreasing probability of being relevant. Your individual needs determine your search strategy.

Thesauri

The new Engineering Index services will be based on a controlled vocabulary employing the Thesaurus of Engineering Terms as the principal source of terms and term relations. This thesaurus is designed to include mainly terms of a general engineering usefulness such as those used by two or more engineering disciplines. Thus it will be necessary for Engineering Index to build its own specialized term organization as the index develops, making use of existing thesauri as much as possible. Close liaison with the cooperating societies will accelerate construction of these specialized thesauri.

SUBSCRIPTION RATES

Member, Institute of Electrical and Electronics Engineers	\$25 per year
Non-Member, IEEE	\$40 per year
Academic - Non-Profit (College Laboratories and Libraries).	\$130 per year
Public Libraries	\$130 per year
Industrial (Corporations, Divisions, Subsidiaries, Agencies, Labora- tories, Libraries).	\$200 per year

CATEGORY LIST

01 General (Electrical)	21 General (Electronic)
02 Electricity and Magnetism	22 Electron Physics; Waves and Propagation
03 Materials and Properties (Electrical)	23 Materials and Properties (Electronic)
04 Components and Parts (Electrical)	24 Components and Parts (Electronic)
05 Circuits and Wiring (Electrical)	25 Circuits and Wiring (Electronic)
06 Measurements and Instruments (Electrical)	26 Measurements and Instruments (Electronic)
07 Direct Energy Conversion; Batteries	27 Power Supplies
08 Generators, Motors and Machinery	28 Transmitters, Receivers and Related Equipment
09 Power Generation	29 Broadcasting and Radio Communication
10 Transmission and Distribution	30 Antennas and Transmission Lines
11 General Applications (Electrical)	31 General Applications (Electronic)
12 Lighting	32 Masers, Lasers and Optical Communication
13 Traction and Propulsion	33 Television
14 Machining (Electrical)	34 Radar and Radionavigation
15 Plating and Electrolytic Processes	35 Acoustics and Ultrasonics
16 Signaling, Switching and Electric Control	36 Telephony &c, Telemetry and Control
17 Welding	37 Computers and Electronic Data Processing
18 Heating	38 High Frequency Heating
19	39 Accelerators; Radiography
20	40

ELECTRICAL AND ELECTRONICS ENGINEERING SECTION

ABSTRACTS

02 Electricity and Magnetism

A02-05325

Zur Konformen Abbildung magnetischer Wirbelfelder, J.KULDA. Acta Technica CSAV v 9 n 2 1964 p 126-41. Conformal mapping of rotational magnetic fields; method applied to analysis of magnetic field of current path in cavity or in cylinder, parallel to path, to show superiority of technique over z-plane method; equations are derived for transformation from one complex plane to another, of current density, vector of magnetic induction, and other field components.

03 Materials and Properties (Electrical)

A03-05312

Research on Impulse Breakdown Mechanism of Dielectric as Used in Oil-Filled Cables, K.KOJIMA, S.TANAKA. IEEE—Trans on Power Apparatus & Systems v 83 n 5 May 1964 p 460-7. Impulse breakdown of oil-impregnated paper alone, paper in combination with polyethylene, and polyethylene alone, was studied with tape thickness and oil-gap or butt-space size as sample variables; results substantiated that breakdown of paper varied inversely with tape thickness, while breakdown of polyethylene was independent of tape thickness; presence of oil in butt-spaces of both materials appeared to be of no consequence. Paper 63-909.

A03-05313

Electric Breakdown of Long Gaps in Transformer Oil, A.M.SLETTEN, T.W.DAKIN. IEEE—Trans on Power Apparatus & Systems v 83 n 5 May 1964 p 457-9. Breakdown distribution of long gaps studied for nonuniform fields; power frequency test voltage was used to show that polarity of half-cycle on which breakdown occurs is dependent on oil purity; no corresponding optical effect, which could explain polarity change, was found when studying breakdown spark by means of photomultipliers; results obtained may help to clarify breakdown process in oil. Paper 64-22.

A03-05321

On Breakdown Voltages of Some Electronegative Gases at Low Pressures, S.SCHREIER. IEEE—Trans on Power Apparatus & Systems v 83 n 5 May 1964 p 468-71. Breakdown voltages of 5 Freon gases and sulfur hexafluoride were measured at low pressures between parallel plates, in order to determine their insulating properties; it was found that advantages of these gases over air are much less at low pressures than at atmospheric pressure or higher; hence use of Freon gases and SF₆ as insulants at lower pressures is limited. 15 refs. Paper 64-33.

A03-05507

Differential Thermal Analysis as Applied to Deterioration of Electrical Insulation, J.P.RANDINO, J.R.ANDREOTTI. Insulation (Libertyville, Ill) v 10 n 5 May 1964 p 24-32. New oxygen injection method is described for determining deterioration resistance in electric insulating materials, particularly at elevated temperatures; method enables quick determination of plot of service life vs temperature since only one aging temperature is required which can correspond to short life value; results of performed tests show that oxidation represents chemical reaction which controls deterioration rate.

A03-05510

Rozbor elektrického pole kapkového izolátoru, Z.RADL. Elektro-technicky Obzor v 53 n 4 Apr 1964 p 209-16. Analysis of electric field of cap insulator; effect of configuration around bolt on electric field distribution of insulator up to critical voltage is analyzed; relationship is derived for optimum diameter of insulation bolt with respect to minimum radial electric stress for given dimensions of porcelain and cap; predominant effect of cementing depth on voltage distribution of cap insulator is shown experimentally.

A03-05511

Nickel and Nickel Alloys—Electrical/Electronic Design Parameters, J.L.SHAW, F.L.PERRY. Electro-Technology v 73 n 5 May 1964 p 101-9. Summary of chemical and physical properties of nickel and nickel alloys; their application in springs for switches and relays, magnetostrictive transducers, electron tube elements, glass/ceramic-to-metal seals and in film and foil form; extensive tabular and graphical data to aid in choice of proper material for specific application.

A03-05514

Fertigungstechnische Probleme bei der Herstellung der Fuehrungsmagnete fuer ein 6-GeV-Elektronen-Synchrotron, J.APPUN, J.LAHR, U.STEFFEN. Siemens Zeit v 38 n 3 Mar 1964 p 171-80. Technical problems in manufacture of beam-guide magnets for 6 GeV electron synchrotron; very close tolerances required in manufacture of beam-guide magnets for German synchrotron in Hamburg are reviewed, in particular uniform stamping accuracy and bonding of laminations and magnetic properties; mechanical strength, dielectric strength of continuous voltage and watertightness were of primary importance for excitation windings.

04 Components and Parts (Electrical)

A04-05309

Developments in Design of Large Power Transformers, H.W.KERR, S.PALMER. Instn Elec Engrs—Proc v 111 n 4 Apr 1964 p 823-32. New forms in design of cores, windings and tanks are discussed to reduce size of transformers and to overcome limitations of their transportation by existing facilities; boltless core construction and its effect on noise level; influence of transposed-strip conductor on transformer sizing and losses; digital computer method for calculating disk winding temperature is presented, and method proposed for reducing stray load losses; test results for core-clamp losses and method for predicting effectiveness of magnetic-tank losses. 18 refs. Paper 4443P.

A04-05314

HT-1 Capacitors, W.FREUDENBERG, D.L.BRUNNER. Nat Research Council—Publ 1141 1963 p 81-3. New high-temperature, low-loss electric capacitor is described that makes use of 2 sheets of Du Pont HT-1 aromatic polyamide to separate 3 aluminum electrodes; experimental data on effect of temperature (up to 200 C) on dielectric constant, dissipation factor and insulation resistance of capacitors; life test data are discussed.

A04-05318

Raschet vneshnikh kharakteristik staticheskogo elektromagnitnogo udvoitel'ya chastoty, V.L.BENIN, V.A.RAYUSHKIN, L.L.ROZHANSKII. Izvestiya Vysshikh Uchebnykh Zavedenii, Elektromekhanika v 7 n 1 1964 p 86-92. Design of external characteristics of static electromagnetic frequency doubler, operating on complex load; method for calculation of doubler cores and windings which takes into account higher current harmonics that may arise under certain supply and load conditions.

A04-05320

Role of Non-Linearity on Theory of Leakage Flux Demagnetization in Transformers, R.C.PAL. Instn Engrs (India)—J v 44 n 4 Pt EL2 Dec 1963 p 107-20. Experimental results obtained during impulse testing of various types of power transformers are evaluated, to show that leakage-flux demagnetization depends on nonlinearity of magnetization curves of transformers, and on width of rectangular copper conductor, inserted for test purposes into l-v winding of transformer, at right angle to flux direction.

A04-05327

Threshold Switch—New Component for Ac Control, M.P.SOUTH-WORTH. Control Eng v 11 n 4 Apr 1964 p 69-72. Design of "Ovonic" threshold switches made from semiconductor materials that are

insensitive to polarity and can be selectively and reversibly changed from high resistance state to low resistance state; using semiconductor without rectifying junctions, simple 2- and 3-terminal voltage-sensitive a-c switches and modulators were manufactured, also sensitive to temperature, pressure, light, and moisture; applications include memory devices, motor control in electric appliances, tools, lighting dimmers, etc.

A04-05329

Modes of Failure of Electrical Connectors, J.F.SHEARER. IEEE—Trans on Aerospace v AS-2 n 2 Apr 1964 p 558-62. Techniques of evaluating and predicting connector performance are described, based on application of principles of stress analysis to individual subassemblies which ultimately make up complete, functioning connector; technique is based on author's contention that strains which are normally called failures, are in reality result of overstressed conditions, imposed upon mechanical properties or composition of materials; tabulated data presented on effects of temperature, vibration, moisture, physical shock, durability, salt spray, sand and dust, altitude, fluids, thermal shock, etc.

A04-05501

Metallized Coatings Fight Corrosion, A.P.SHEPARD. Elec World v 161 n 18 May 4 1964 p 62-3. Costs of sealed coatings of flame-sprayed aluminum or zinc for steel structures vs organic coatings are discussed; metallized coatings provide longer service life, need minimum surface preparation for overcoating, and offer better resistance against corrosion.

A04-05502

Semiconductor Power Rectifiers, W.D.SINCLAIR, G.E.SNAZELL. AEI Eng v 4 n 2 Mar-Apr 1964 p 74-81. Control of electrical characteristics of semiconductor diodes makes it possible to design rectifier installations with known safety margins; methods of connecting, cooling and protecting them are given; use of digital computer to provide high-speed data processing for quality control in diode manufacture.

A04-05512

Einfluss der Stromanstiegssteilheit auf die elektrodynamische Beanspruchung bei Gleichstromanlagen, K.WAGNER. Elektrik v 18 n 3 Mar 1964 p 75-7. Effect of current slope on electrodynamic stress in d-c installations; investigation of vibration stress of bus bars in elastic and plastic regions shows possibility of saving conductor and supporting material in d-c installations.

06 Measurements and Instruments (Electrical)

A06-05319

Universal Magnetometer, V.P.POLYAKOV. Instruments and Experimental Techniques (English translation of Priboiy i Tekhnika Eksperimenta) n 5 Sept-Oct 1963 p 964-8. Range of applications of magnetometer extended to 10^6 g by use of specially designed balance for measuring force acting upon specimen in inhomogeneous field, and by use of simplified error detection system; magnetometer is applicable to measurements of magnetic susceptibility and magnetization of diamagnetic, paramagnetic and ferromagnetic materials, particularly of ferromagnetics near transition point.

A06-05513

Zur Elementenprüfung von Hochspannungs-Hochleistungsschaltern, E.SLAMECKA. Siemens Zeit v 38 n 3 Mar 1964 p 157-9. Testing of elements of high-voltage, high-power circuit breakers; method for determining voltage distribution in capacity controlled partial breaks is described, which can be extended to resistance controlled units.

A06-05918

True R.M.S. Voltage Measuring Circuit, J.C.CLULEY. Electronic Eng v 36 n 435 May 1964 p 300-3. Voltage errors in automatic voltage regulators of alternators caused by voltage harmonics are discussed; 3-phase rectifier and error-detector is described using square-law semiconductor diode circuit which reduces these errors.

07 Direct Energy Conversion; Batteries

A07-05330

Analysis of Distributed Superconductive Energy Converter, A.R.SASS. IEEE—Trans on Aerospace v AS-2 n 2 Apr 1964 p 822-5. Equivalent circuit is presented for mechano-electrical converter, operation of which is based on principle of flux conservation in superconducting loops; Laplace transformation is used to analyze

circuit and solutions are examined in order to optimize operation of device; while previously only d-c operation of such device has been realized, it is shown that low frequency a-c mode can also be achieved, under certain conditions.

A07-05503

Photoelectric Generation, J.W.GARDNER. English Elec J v 19 n 2 Mar-Apr 1964 p 20-3. Review of methods of manufacturing photo-voltaic solar cells and their applications; improvement schemes for increasing their efficiency are discussed, such as utilizing broader bandwidth of solar spectrum, concentration of sunlight, and employing special geometric cell configurations. 22 refs.

A07-05524

Magnetohydrodynamic Generation of Power, K.PHILLIPS. AEI Eng v 4 n 2 Mar-Apr 1964 p 62-7. Basic principles of magnetohydrodynamic power generation are reviewed, where conducting fluids, such as gases, are passed between magnetic poles; effect of gas conductivity and of Hall effect on output of magnetohydrodynamic generators; their introduction into possible thermodynamic cycles and limitations of existing materials for generator construction are also considered.

A07-05914

Thermionic Power Generation, V.C.WILSON. IEEE Spectrum v 1 n 5 May 1964 p 75-83. Thermionic power converters using cesium vapor, tungsten emitter, and niobium collector are examined for use in nuclear power stations; operating characteristics and efficiencies are developed and plotted; cost estimates are given for thermionic converters used as toppers to steam turbine of central power station.

08 Generators, Motors and Machinery

A08-05306

Root-Locus Study of Synchronous-Machine Regulation, C.A.STAPLETON. Instn Elec Engrs—Proc v 111 n 4 Apr 1964 p 761-8. General equations of synchronous machine with continuous regulation, connected to large system, are reduced by small departure methods to linear relationships, from which characteristic equation for particular situation is derived; root locus plots are introduced to demonstrate their value in displaying variations in gain, exciter time constant and other dynamic response and stability characteristics of regulator circuit, including constants of derivative circuits used for stabilizing; methods for stabilization of regulator by means of transformers and derivative feedback. Paper 4428P.

A08-05307

Inductance Coefficients of Rotating Machines Expressed in Terms of Winding Space Harmonics, R.B.ROBINSON. Instn Elec Engrs—Proc v 111 n 4 Apr 1964 p 769-74. Expressions are developed for self- and mutual inductance coefficients in terms of harmonics of nonsinusoidally distributed windings, and of air gap permeability of electric machine; it is shown how, and to what extent, departures from ideal machine modify inductance coefficients, and introduce new terms not amenable to usual mathematical treatment. Paper 4431P.

A08-05308

Voltage Effects of Capacitive Load on Synchronous Generator, J.L.DINELEY, K.J.GLOVER. Instn Elec Engrs—Proc v 111 n 4 Apr 1964 p 789-95. Indirect analytical methods, and method based on use of analog computer, are presented for calculating terminal voltage rise, caused by self-excitation of synchronous generator when connected to capacitive load; analog computer method is extended to permit direct evaluation of effects of magnetic saturation upon terminal voltage transient. Paper 4437P.

A08-05310

Novel Principle of Transient High-Voltage Generation, R.A.FITCH, V.T.S.HOWELL. Instn Elec Engrs—Proc v 111 n 4 Apr 1964 p 849-55. Stacked transmission line type, and inductance-capacitance and spiral types of electrostatic pulse generators are discussed; designs based on voltage multiplication by transient reversal of voltages in alternate units of series connected systems; pulses of 10^5 to 10^7 v can be obtained. Paper 4435S.

A08-05311

Measurement of Equivalent Circuit Constants and Frequency Characteristics of Stall Torque for Two Phase Servomotor, Z.MAEKAWA. Mitsubishi Denki Laboratory Reports v 5 n 1 Jan 1964 p 33-53. Method described makes use of search coils inserted into

stator slots; measurement of stator and rotor leakage reactance is carried out separately; results of measurement are used to calculate frequency characteristics of servomotor torque.

A08-05315

O metodakh analiza nesimmetrichnykh rezhimov zaboty mashin peremennogo toka, I.I.TRESHCHEV. Akademiya Nauk SSSR, Izvestiya, Energetika i Transport n 1 Feb 1964 p 16-21. Methods of analyzing unbalanced operation of a-c machines; technique for studying transients in synchronous generators and motors, by means of specially derived system of Volterra's integral equations with rapidly decreasing iterated kernels; possibility of reducing differential equations with periodic coefficients to same number of equations with constant coefficients, while keeping error of transient calculation within permissible limits.

A08-05316

Povyshenie dinamicheskoi ustoychivosti kapsul'nykh gidrogeneratortov, L.A.SUKHANOV, G.V.RUBISOV, E.A.VOLKOVA. Akademiya Nauk SSSR, Izvestiya, Energetika i Transport n 1 Feb 1964 p 123-8. Improvement of stability of encased hydrogenerators; analysis made of effectiveness of electric braking and resynchronization, when used to improve dynamic stability of generators mounted into dam structure along with turbines.

A08-05322

Avantages et limites d'utilisation des balais liquides, J.ROBERT. Soc Francaise des Electriciens—Bul v 5 n 51 Mar 1964 p 143-54. Advantages and limitations of using liquid brushes; fabrication of indium amalgams for current transfer from stator to rotor of homopolar electric machines is discussed; since liquid amalgam has tendency to turn into powder as result of stirring motion, it is proposed to emulsify amalgam by some gas electronegative to mercury.

A08-05324

Mesure en service de la résistance électrique des rotors d'alternateurs, H.BOUSQUET. Rev Générale de l'Electricité v 73 n 2 Feb 1964 p 75-8. Measurement of electric resistance of alternator rotors during operation; volt-ampere method of measuring resistance variations at only one reference point at end of rotor winding; design of measuring device is discussed, especially of circuit to compensate for resistances between brushes and slip ring of alternator.

A08-05326

Newest Entry—Static Adjustable Frequency Drives, K.A.HULTSTRAND. Control Eng v 11 n 4 Apr 1964 p 57-63. Static variable speed a-c drives are discussed, in which frequency and motor speed are precisely matched to output of reference oscillator; feasible drive systems are reviewed, and details presented on system using d-c to d-c converter to control input of silicon-controlled rectifier inverter; applications include single motor systems for machine tool spindle drive, and multi-motor drive systems for fiber spinning machine.

A08-05508

Zur elektromagnetischen Schwingungsanregung bei Asynchronmaschinen, H.WEH. ETZ (Ed A) v 85 n 7 Apr 3 1964 p 193-7. Electromagnetic excitation of oscillations in induction motors; method of computation of excitation in yokes of a-c machines is extended to include radial force waves of higher periodic order in air gap; relationship is derived for amplitude and ordinal number as dependent on air gap force wave and number of teeth for yoke waves of lowest periodicity; generation of subharmonics in transmission of air gap force waves to yoke is detected, which helps to overcome discrepancies between analytical and experimental considerations in noise investigations.

A08-05516

Der Windungsschlusschutz von Synchronmaschinen nach der Spaltleitermethode, J.STROBL. Elin Zeit v 16 n 1 Mar 1964 p 10-15. Interturn short circuit protection of synchronous machines based on split-conductor method; smallness of interference currents is shown to permit application of method; currents appearing in relays in case of faults can be readily determined, which facilitates equipment layout because only machine reactance and some stator-winding data have to be known.

09 Power Generation

A09-05519

Hitotsuse 94,000-kw Francis Turbines, T.TOMIYAMA. Toshiba

Rev n 17 Spring 1964 p 9-15. Semi-underground power station with maximum output of 180 Mw constructed by Toshiba for Kyushu Electric Power Co of Japan comprises man-made lake having water storage capacity of over 261 million cum; discussion includes construction of water turbines, spiral casing, wicket gates made of cast steel, main shaft, guide bearing, butterfly valve and electro-hydraulic speed governor.

A09-05525

PWR Plant Has Conventional Controls, R.EASTMAN, D.F.WINTERS. Elec World v 161 n 22 June 1 1964 p 49-51, 145. Pressurized-water-reactor power plant is discussed and shown in block diagram; plant resembles fossil-fuel installation, except for instrumentation added for nuclear flux; electric power output, regulated by direct control of steam input to turbine, is prime signal, modified by anticipatory variables, such as load, pressure, temperature, rate of flow and volume of water used as coolant.

10 Transmission and Distribution

A10-05301

Corona Loss and Radio Interference Measurements at High Voltage A.C. on Test Lines in Sweden, N.KNUDSEN. Conference Int des Grands Réseaux Electriques à Haute Tension 20th n 411 1964 p 1-17. Measurements on 400 kv test lines with double and triple 3.2 cm conductors, having spacings of 45 cm; results compared to show superiority of triple configuration, for which losses and radio interference levels at 460 kv are equal to those of double conductors at 400 kv; effects of humidity and bad weather conditions, including fog, dry and wet snow, rain, and hoar frost, on amount of losses and interference levels; formulas proposed for corona loss calculation under fair weather conditions.

A10-05302

ADDAPS—Automatic Digital Dispatch and Processing System, H.W.LYDICK, J.F.SUTHERLAND. Westinghouse Engr v 24 n 3 May 1964 p 66-71. Dispatching and data processing system for electric power generation and transmission control, in which PRODAC 580 computer is used for controlling analog generation control equipment; PRODAC 580 can also be used for power interchange billing, accounting and outage analysis.

A10-05303

Some Design Aspects of Harmonic Filters for H.V.D.C. Transmission Systems, F.ILICETO, J.D.AINSWORTH, F.G.GOODRICH. Conférence Int des Grands Réseaux Electriques à Haute Tension 20th n 405 1964 p 1-25. Theoretical analysis and calculations, supplemented by model studies, are made of harmonics caused by inverters and rectifiers in interconnected a-c and d-c transmission lines; results of study are used in design of filters for suppressing voltage and current harmonics, and resultant radio interference in 220 kv a-c lines of Italy's mainland transmission system; filters are to be used at rectifier station connecting mainland system with d-c submarine link to Sardinia; design of filters for d-c link.

A10-05304

Overvoltages at Terminals of Cable Connected to Overhead Line Subjected to Lightning Stroke Beyond Critical Zone, J.A.GIARO. Conférence Int des Grands Réseaux Electriques à Haute Tension 20th n 310 1964 p 1-21. Equivalent circuit method for analyzing and calculating overvoltages produced in cable termination by lightning strokes on section of overhead lines, about 1-30 km away from termination; generalized equation and system of special equations are derived for direct calculation of variation of overvoltages with distance of lightning stroke, on 1-30 km section of line itself.

A10-05305

New Type of Guyed Tower for 220/400 kv Overhead Electrical Lines—Design and Tests, N.MINEV, M.ARNAUDOVA, S.ZAHANOV. Conférence Int des Grands Réseaux Electriques à Haute Tension 20th n 223 1964 p 1-15. Design of guyed portal type of steel tower which can be initially used for two 220-kv circuits and, after conversion, for one 400-kv circuit with twin conductors per phase; basic equations used in designing cross-arms, legs, guys, and concrete foundations of tower; full scale tests on tower, using modified strain gage methods, are described.

A10-05317

K voprosu ob opredelenii sobstvennykh i vzaïmnykh soprotivlenii energosistemy, V.S.KHACHATRYAN. Elektrichestvo n 4 Apr 1964 p 27-30. Calculation of driving point and transfer impedances of

power system, as related to common node, for varying network configurations; simplified matrix method proposed is applicable to power systems of any likely complexity and configuration for calculating variations in impedance caused by connecting (or disconnecting) single transmission lines, or groups of transmission lines in power system; impedance calculations are of accuracy sufficient for derivation of loss formulas of power system.

A10-05323

Nouvelle méthode de détermination des pertes dans les réseaux électriques à haute tension, C.SZENDY. Rev Générale de l'Electricité v 73 n 2 Feb 1964 p 102-4. New method of loss determination in h-v electric transmission networks; method, using ohmic voltage drop matrices, permits calculation of variation of losses with load, and effect of eliminating old transmission lines, and adding new lines, upon total loss of system.

A10-05504

Protective Relaying for EHV Systems, J.L.BLACKBURN. Westinghouse Engr v 24 n 3 May 1964 p 72-7. Use of relays for protection of extra high voltage (500 kv) systems is discussed; new distance phase-comparison system combining advantages of directional and phase-comparison schemes is well adapted for major transmission lines utilizing power-line carrier, particularly where series capacitors are used; permissive overreaching transfer-trip scheme is preferred when audio tones over pilot wires or microwave are used.

A10-05520

Aerial Substations Solve Difficult Problem, M.W.LEVY. Transmission & Distribution v 16 n 5 May 1964 p 54-6. Single-feeder, pole-mounted autotransformer distribution substations are described which replace obsolete outdoor and indoor 13.2/4 kv substations of Kansas City Power & Light Co; new system proves to be economical; it has reduced losses, improved overhead appearance, and eliminated need for voltage regulators.

A10-05522

Chemical Brush Control Cuts Costs and Outages, R.E.ABBOTT, J.F.MOORE. Elec Light & Power v 42 n 5 May 1964 p 70-4. Program of chemical brush control for transmission and distribution right-of-way maintenance, developed by Central Hudson Gas & Electric Corp, covers 2600 sq mi of heavily wooded area; present technique, using dormant selective basal spray, is compared with previous methods and is shown to be more effective and less costly, and to yield marked reduction in service interruptions.

A10-05523

New Line Design Solves Severe Insulator Cleaning Problem, S.G.PANN, G.R.ELDER, C.E.COREY. Elec Light & Power v 42 n 5 May 1964 p 84-5. Use of horizontal post-type insulators for double-circuit 34.5-kv distribution lines by Los Angeles Department of Water & Power; horizontal insulators, utilizing standard clamp-top hardware, yield lower maintenance cost resulting from reduction or elimination of insulator washing, provide ample clearances for hot-line maintenance work, are less prone to contamination flash-over than vertically mounted ones, and present improved appearance.

11 General Applications (Electrical)

A11-05505

Touchless Tachometry, E.V.SUNDT. Electromechanical Components & Systems Design v 8 n 5 May 1964 p 36-7. Features of photoelectric pickups employing solar, silicon or cadmium selenide cells, stroboscopes, magnetic pickups, proximity switches and vibrating reeds; use for measuring speeds up to 480,000 rpm of small rotating machines without loading specimen being measured.

12 Lighting

A12-05518

Sodium-Vapor Lamps and Their Illumination, S.NOMURA, K.FUJII, M.TANIBAYASHI. Toshiba Rev n 17 Spring 1964 p 5-8. Manufacture of sodium lamps by Toshiba of Japan using specially developed sodium-resistant glass which contributes to superior performance over conventional lamps; physical properties of glass and features of lamp construction; lighting circuit using choke coils and boosting transformers; advantages of using sodium lamps in tunnels, as traffic lights in downtown Tokyo, and in areas frequently affected by fog or polluted by smog.

13 Traction and Propulsion

A13-05506

Automatic Driving of Electric Trains, R.DELL, A.W.MANSER. Electronics & Power v 10 n 4 Apr 1964 p 104-8. System for controlling automatic trains by coded current pulses transmitted through rails and picked up inductively by coils placed in train; speed and braking are continuously controlled and safe spacing between trains is insured even in heavy traffic; positioning of fixed signal equipment on track to program movement permits flexibility suited to geographical conditions; trains presently operated on trial basis by London Transport for passenger service.

A13-05509

Anwendung von Halbleiter-Stromrichtern auf elektrischen Triebfahrzeugen, O.HARTMANN, C.TIETZE. ETZ (Ed A) v 85 n 7 Apr 3 1964 p 198-205. Use of semiconductor rectifiers for electric traction; thyristors provide contactless voltage transformation and regenerative braking for 16 2/3 cps system typical for central European railroads; developments in pulse control techniques result in power saving in battery-driven vehicles, by eliminating starting losses, and in power regeneration.

18 Heating

A18-05515

Heizstaube fuer Elektroofen, E.BOLLER. Bul de l'Assn Suisse des Electriciens v 55 n 8 Apr 18 1964 p 358-61. Heating rods for electric furnaces; manufacturing methods and physical and chemical characteristics of silicon carbide heating rods; their application in ceramic, porcelain and metal industries and in laboratories, where their high thermal and chemical resistance makes them suitable for temperatures up to 1450° C; recommendations for choice of particular specimens.

21 General (Electronic)

A21-05709

La formation professionnelle dans les industries électroniques, J.DEMONET. Onde Electrique v 44 n 443 Feb 1964 p 107-26. Education and advancement of technical personnel in electronic industries; scope of electronic industries in France, and description of established job categories; plans for basic, vocational and engineering training under Ministry of National Education, and for adult technical training under Ministry of Labor; opportunities for upgrading; lists of suitable schools and colleges.

24 Components and Parts (Electronic)

A24-05332

Silizium-Hochstrom-Schalttransistoren in Mesatechnik, G.EBERHARD. Siemens Zeit v 38 n 4 Apr 1964 p 311-13. High-current silicon mesa switching transistors; BUY-12 and BUY-13 transistors are described, emitter and base electrodes of which are made comb-shaped to avoid skin effect produced by high currents in large-area electrodes; collectors of transistors consist of partial layers of high and low resistance; layers are produced by diffusion technique, which in this case has advantages over epitaxial technique.

A24-05529

Microwave Semiconductor Control Devices, K.E.MORTENSON. Microwave J v 7 n 5 May 1964 p 49-57. Microwave properties of semiconductor devices, in particular varactors and variable resistance diodes, are discussed, along with their application in design of switches, phase shifters, limiters and duplexers; their use is recommended because of moderate control power requirements of less than 100 mw, high speed of response of 100 nsec, compactness, light weight, long life and reliability as compared to mechanically controlled units.

A24-05905

Investigation into Use of Iteration Methods for Analysis of Axially Symmetric and Sheet Beam Electrode Shapes with Emitting Surface, P.T.KIRSTEIN, J.S.HORNSBY. IEEE—Trans on Electron Devices v ED-11 n 5 May 1964 p 196-204. Digital computer program is discussed for analysis of axially symmetric and sheet beam electrode shapes with emitting surface using iteration methods; program alternately solves Poisson's equation by relaxation technique, traces trajectories, recomputes space-charge distribution, and re-performs relaxation process; 2 examples given.

A24-05909

Silicon Planar Epitaxial Transistors as Fast and Reliable Low-Level Switches, T.C.VERSTER. IEEE—Trans on Electron Devices v ED-11 n 5 May 1964 p 228-37. Static properties, stability, and transient response of silicon planar epitaxial transistors used for low-level switching operations in chopper amplifiers and rapid-sampling commutators are discussed; procedure for selection of temperature-compensated transistor pairs is given. 18 refs.

A24-05910

Effects of Distributed Base Potential on Emitter-Current Injection Density and Effective Base Resistance for Stripe Transistor Geometries, J.R.HAUSER. IEEE—Trans on Electron Devices v ED-11 n 5 May 1964 p 238-42. Assuming parallel and planar junctions, negligible voltage drops in emitter region, negligible surface recombination, negligible conductivity modulation, and constant α across base region, formulas are derived for base-current density, emitter-current density, base-emitter voltage, effective emitter width, and base resistance of stripe transistor geometries.

25 Circuits and Wiring (Electronic)

A25-05528

Compact Tunable Filters, R.B.WILDS, G.J.WHEELER, E.A.COTA. Microwave J v 7 n 5 May 1964 p 58-9. Procedure for experimentally designing coupling mechanism for compact, tunable filter, consisting of two cavities in series, synchronously tuned; for L-Band cavities, covering frequency range 1-2 Gc, dielectric plungers were made of material with dielectric constant of 16, while for S-Band units, covering range 2-4 Gc, fused quartz was used having dielectric constant of 3.99.

A25-05531

O vyznuzhdeniyakh kolebaniyakh v konture s fluktuiruyushchei sobstvennoi chastotai, S.A.IVANOV, Yu.M.ROMANOVSKI. Radiotekhnika i Elektronika v 8 n 8 Aug 1963 p 1397-1406; see also English translation in Radio Eng & Electronic Physics n 8 Aug 1963 p 1347-55. Forced oscillations in circuit with fluctuating natural frequency; statistical characteristics of forced oscillations in RLC circuit with fluctuating capacitance are obtained; probability distribution is formulated for amplitude and phase of forced oscillations in case of broadband frequency fluctuations; experimental method in which characteristics were obtained through photographic means; results compared with calculations.

A25-05703

Comparison of Five Methods of Low-pass Passive Filter Design, A.G.J.HOLT. Radio & Electronic Engr v 27 n 3 Mar 1964 p 167-80. Computation of normalized amplitude- and phase-frequency characteristics of low-pass filters, using 3-pole approximations to 5 functions (Butterworth, Chebyshev, Papoulis, 'maximally flat delay' and 'in-line pole'); oscillographs of output waveform with rectangular-waveform input to low-pass filters using AF passive networks, show good agreement with predicted characteristics for all 5 types of functions of image impedance and attenuation.

A25-05713

Etude des effets de l'échantillonnage en détection des signaux faibles, J.DUFLOS. Onde Electrique v 44 n 443 Feb 1964 p 197-209. Study of effects of sampling on weak signal detection; relationship of type of periodic sampling to detection sensitivity, using simple and polarity-coincidence correlation techniques, with and without clipping circuits; effect of frequency of sampling is considered; mathematical demonstrations included.

A25-05906

Low Noise M-Type Parametric Amplifier, J.W.KLUEVER. IEEE—Trans on Electron Devices v ED-11 n 5 May 1964 p 205-15. Degenerate crossed-field cyclotron wave parametric amplifier in which all 3 interaction circuits are half-wave coaxial cavities is described; comparison of O-type and M-type cyclotron wave parametric amplifiers is made; other experimental results are reported; at 1957 Mc, noise figure was 5 db with beam noise of 3.2 db.

A25-05911

How to Design Micropower Transistor Amplifiers—1, J.D.MEINDL, R.GILSON, O.PITZALIS, W.KISS. Electronics v 37 n 16 May 18 1964 p 73-8. Optimum design theory is described for linear broadband micropower transistor amplifiers using multi-chip fabrication techniques; characteristics of commercially available micropower transistors is given; typical unit has output of 0.18 v

over temperature range of -50 to 100 C for power drain of 25 μ w and power gain of 25 db.

A25-05919

Transistor Low Drift D.C. Amplifiers, J.J.PINTO. Electronic Eng v 36 n 435 May 1964 p 304-8. Variations of d-c parameters of transistors are discussed for design of low drift d-c amplifiers; long-tailed pair, mirror-image, and direct coupled amplifiers are treated.

A25-05920

Low Voltage, High Input Impedance Hybrid Amplifier Circuits, F.H.LAISHLEY. Electronic Eng v 36 n 435 May 1964 p 309-11. Family of hybrid d-c amplifiers having very high input impedances and low voltage supplies are described; using single vacuum tube followed by conventional semiconductor circuits, amplifiers are suitable for application to voltage measurements of low value capacitors.

A25-05921

Tuned Detectors Using Twin-T Circuit, T.SPENCER. Electronic Eng v 36 n 435 May 1964 p 315-21. Twin-T circuits are discussed and applied to transistor amplifiers providing good stability for almost any bandwidth; nomogram for optimum design and universal curves of twin-T are given.

A25-05923

Analysis of Feedback Amplifier, C.D.WEST. Electronic Eng v 36 n 435 May 1964 p 326-9. Analysis of pulse amplifier with low temperature coefficient of gain is presented; circuit consists of d-c coupled difference amplifier and common emitter stage; component values are given for amplifier with gain of 10 and temperature coefficient of 50×10^{-6} per C.

A25-05926

How to Design Micropower Transistor Amplifiers—2, J.D.MEINDL, R.GILSON, O.PITZALIS, W.KISS. Electronics v 37 n 17 June 1 1964 p 48-52. Common emitter, feedback, worst case, and cascode micropower transistor amplifiers were constructed and tested; calculated and measured performance data are given for all 4 designs; cascode design has larger bandwidth than other designs.

A25-05928

Getting Transistors into Single-Sideband Amplifiers, R.C.HEJHALL. Electronics v 37 n 17 June 1 1964 p 72-5. Design of 30-Mc class B linear transistor amplifier is given; using pi input and output networks, amplifier delivers 15-20 w with third order distortion products down 37 db.

26 Measurements and Instruments (Electronic)

A26-03750

Graphical Aids to Noise Figure Measurement, M.D.WOOD. Wireless World v 70 n 5 May 1964 p 258-9. Measurement of noise in amplifiers at intermediate and radio frequencies by introducing a noise source with separate power supply to double noise originally present; formula is derived to use anode current in milliamperes required to double noise figure; graphical solution eliminates all slide-rule calculations.

A26-05927

Testing Transistors In-Circuit, A.T.ASHBY, T.R.SHAIFER, H.R.HEGNER. Electronics v 37 n 17 June 1 1964 p 53-6. Transistor leakage current meter using unity gain d-c amplifier is described that operates while transistor is in-circuit; leakage currents of 1 μ a can be measured with accuracy of 20% with load resistance of 500 ohms.

27 Power Supplies

A27-05521

Current Source with Very Great Resistance, A.AMBROZY. Periodica Polytechnica—Elec Eng v 7 n 3 1963 p 185-95. Use of positive feedback in tube and transistor circuits for obtaining current sources having extremely high resistances; discussion of linear integrated circuit for automatic statistical quality control, using electron tubes, and transistorized circuit for measuring transistor parameters.

A27-05707

Analysis of Series Regulators as Active Two-port Networks, R.

A.ZAKAREVICIUS. Radio & Electronic Engr v 27 n 3 Mar 1964 p 237-43. Analysis of transistor series voltage and current regulators for power supplies, including feedback control; development of general theory for such circuits, treating them as active linear 2-ports, and characterizing performance in terms of transistor hybrid parameters; adaptability to electron-tube circuits.

A27-05924

Simple, High-Performance Series Stabilizer, D.J. COLLINS. Electronic Eng v 36 n 435 May 1964 p 330-1. Transistor voltage regulator is described for use with pressure transducers; for input voltage from 11 to 15 v, output varied only 10 mv with output resistance of 0.2 ohms.

29 Broadcasting and Radio Communication

A29-05903

Amplitude Modulation with Noise Carrier, H.E. ROWE. IEEE-Proc v 52 n 4 Apr 1964 p 389-95. Amplitude modulation of narrow-band random noise carrier at optical frequencies is analyzed for baseband and microwave cases; spectral density and total power of output noise for both cases are derived and compared assuming random noise carrier to be Gaussian random process.

A29-05904

Frequency or Phase Modulation with Noise Carrier, H.E. ROWE. IEEE-Proc v 52 n 4 Apr 1964 p 396-408. Angle modulation of narrow-band Gaussian random noise is analyzed assuming SSB multiplex signals of many adjacent, narrow-band channels of same snr; curves relating output snr, required channel bandwidth, intelligence bandwidth, required frequency translation of baseband multiplex signal before modulation, and peak phase index of modulator; carrier frequency was chosen in optical range.

A29-05913

Sweeping Carrier Signals Through Interference, W.H. CHILES, H.G. LAFUSE. Electronics v 37 n 16 May 18 1964 p 94-6. C-band frequency slope modulation system that is insensitive to narrow-band noise; transmitter uses chirp radar type signal that is frequency modulated; receiver uses difference between delayed and direct signals to amplitude modulated signal which is then handled in normal fashion; total harmonic distortion was less than 7% from 65 to 5000 cps; technique proposed for reliable communications system.

A29-05915

Protecting Communication Systems from EMP Effects of Nuclear Explosions, J.B. HAYS. IEEE Spectrum v 1 n 5 May 1964 p 115-22. Characteristics of electric and magnetic fields which are created during nuclear explosions; protection of communications equipment using electric and magnetic shielding techniques are evaluated using laboratory electric and magnetic field pulses.

30 Antennas and Transmission Lines

A30-05712

Propriétés des structures à ondes de surface à diélectrique anisotrope—Etude d'une structure à diélectrique artificiel, C. POMOT, J. MUNIER. Onde Electrique v 44 n 443 Feb 1964 p 173-89. Properties of surface-wave structures having anisotropic dielectric, and design of structure having artificial dielectric; transmission modes of surface waves propagated along dielectric films are derived by tensor analysis in terms of magnetic permeability and dielectric constant, subject to specified constraint; method of computation of components of these tensors for anisotropic dielectric films; apparent refractivity of such structure, determined by experimental data.

A30-05907

Wave Propagation in Pyrolytic-Graphite Slow-Wave Circuits, S. F. PAIK, H.J. KRAHN, B.H. SMITH. IEEE-Trans on Electron Devices v ED-11 n 5 May 1964 p 215-19. Simulation of sheath-type microwave slow-wave structures is investigated experimentally using anisotropic resistive material like pyrolytic graphite; measurement of mode of propagation of Karp line using model of pyrolytic graphite was made.

A30-05922

Simple Balloon Technique for Measuring Radiation Patterns of Radio Aerials, C.S.L. KEAY, R.E. GRAY. Electronic Eng v 36 n 435 May 1964 p 322-5. Method of measuring antenna radiation patterns at frequencies from 20 to 500 Mc, using transmitter and dipole

suspended from meteorological balloon; measurements of patterns are within 10% accuracy.

31 General Applications (Electronic)

A31-05333

Semiconductor Cathode Preparation for Field Emission Microscopy, W.R. SAVAGE. Rev Sci Instruments v 35 n 5 May 1964 p 605-6. Techniques for cutting bulk samples of semiconductors into rough blanks, and for subsequent reduction of blanks to sharply pointed conical cathodes by means of etching; conical cathodes were prepared from silicon, germanium, cadmium telluride, indium antimonide and gallium arsenide.

A31-05714

Ensemble préamplificateur-amplificateur "Non Saturable" à faible temps de résolution et très faible bruit de fond, TOUZIN, GAGNE. Onde Electrique v 44 n 443 Feb 1964 p 190-6. Pre-amplifier-amplifier chain which is non-saturable and has low resolving time and very low background noise; application to absolute measurement of radioactive decay using 4-pi proportional counter; capability of detecting single pair of ions.

A31-05916

Pulse Period Meter with Short Response Time, Applied to Cardiotachometry, P.A. TOVE, J. CZEKAJEWSKI. Electronic Eng v 36 n 435 May 1964 p 290-5. Method of measuring pulse repetition rate with fast response to frequency changes, using alternate charging of 2 capacitors during successive pulse intervals; practical circuits for application to cardiotachometry, registration of respiratory frequency, and information transmission using pulse length modulation.

32 Masers, Lasers and Optical Communication

A32-05908

Computer Approach to Laser Design, T.G. PURNHAGEN, J. LUBELFELD. IEEE-Trans on Electron Devices v ED-11 n 5 May 1964 p 219-28. Digital computer program is discussed for design of 4-level lasers using 6 subefficiencies related to length, radius, doping density, pumping energy, end reflectivities and pumping time constant; design of neodymium doped glass laser is given using digital computer.

33 Television

A33-05704

Standardization of Signal Specifications for Pay Television Systems, D.W. HEIGHTMAN. Radio & Electronic Engr v 27 n 3 Mar 1964 p 213-18. Study of British closed-circuit pay TV, considering transmission methods, possible coding which may affect present national TV vision and sound standards, and techniques suitable for toll ticketing in subscribers' homes; agreement on standards, especially on control signals, is urged to be reached prior to wide spread installation; British law prohibits broadcasting pay TV, necessitating use of transmission lines.

A33-05705

Pay Television by Wire, P. BASS. Radio & Electronic Engr v 27 n 3 Mar 1964 p 209-12. Toll-rate switching circuits, audience-counting circuits, and bandwidths for signals actuating these circuits and for carrying programs, are described for use in British closed-circuit pay TV; discussion is limited to use of high-frequency, paired-cable transmission lines; channel selectors, coin boxes, and toll ticketing systems for installation in homes of subscribers.

A33-05711

Le problème du traducteur courant-lumière en télévision couleurs et l'aspect particulier de la compatibilité, M. CHAUVIERRE. Onde Electrique v 44 n 443 Feb 1964 p 160-72. Current-to-light transducer problem in color TV and special consideration of compatibility; effect of various types of picture tubes, and of French raster standards (819 and 625 lines/frame) upon receivers for use with both color and achromatic TV; picture-tube types discussed are 3-gun (with aperture mask), 3-tube (with dichroic mirrors), and single-gun (with beam switching or post-deflection deflection); seriousness of problem of maintenance in homes of users is stressed.

34 Radar and Radionavigation

A34-05902

Pulse Compression Predistortion Function for Efficient Sidelobe

Reduction in High-Power Radar, C.E.COOK, J.PAOLILLO. IEEE—Proc v 52 n 4 Apr 1964 p 377-89. Model of Fresnel spectrum that permits accurate calculation of compressed pulse sidelobe structure; elimination of spectrum amplitude ripple was shown experimentally to remove paired-echo sidelobes; predistortion linear FM pulse compression signal is presented as realizable means of control over spectrum function; experimental waveforms illustrating reduction of spectrum-associated paired-echo sidelobes with modified linear FM signal are given. 21 refs.

35 Acoustics and Ultrasonics

A35-05526

Ultrasonic Testing of Boost Motors, B.HARRIS-MADDOX. Ultrasonics v 2 Apr-June 1964 p 60-4. Technique to test bond of plastic propellant to steel case of boost motors of British guided missiles, by comparing decay patterns of ultrasonic pulse transmitted into case; narrow pulse probes were developed that avoid interference effects and result in series of multiple echoes from thinnest case; fully automatic scanning and recording systems with focused immersion probes were designed; use of ultrasonic testing is discussed for quality control of propellants exposed to extreme climatic and temperature changes as in deserts.

A35-05527

New Ultrasonic Fish-Detection Equipment for Trawlers, P.R. HOPKIN, R.W.G.HASLETT. Ultrasonics v 2 Apr-June 1964 p 65-70. New detection scheme using echo sounders in which displayed range is locked to sea-bed echo and therefore independent of depth variations due to sea-bed contour or to vertical movement of trawler; locking is done by storing echoes on magnetic recording drum that are observed on cathode-ray tube and recorded by means of stylus on electro-sensitive paper; transmitter was designed to yield 8 kw peak power to transducer at 30 kc.

A35-05901

Coupled Modes of Acoustic Waves and Drifting Carriers in Piezoelectric Crystals, K.BLOETEKAER, C.F.QUATE. IEEE—Proc v 52 n 4 Apr 1964 p 360-77. Acoustic wave amplification in piezoelectric crystals is analyzed using normal modes of uncoupled system; characteristics of growing wave are given in terms of conduction and diffusion frequencies; calculated boundary conditions show that input couples into growing wave without much initial loss; 500-Mc results, using CdS, indicated unwanted crystal oscillations and inefficient coupling of external source into acoustic waves. 29 refs.

36 Telephony &c, Telemetry and Control

A36-05328

Time Division Multiplexing for Industrial Applications, J.L. HAYNES. Instruments & Control Systems v 37 n 4 Apr 1964 p 98-102. TDM system of telemetering, which uses balanced input wiring, input transient protection circuit, optimum modulation-index, FM transmission, and error detecting code formats; latching reed-relays are used to avoid false outputs during abnormal environmental conditions.

A36-05701

Telephone Channel Capacity of Transmission Lines, D.A.GRAY. Radio & Electronic Engr v 27 n 3 Mar 1964 p 229-36. Maximum channel capacity of telephone transmission lines, as affected by line attenuation at reference frequency, by power and by snr, using AM followed by frequency-division multiplex, FM followed by frequency-division multiplex, and by PCM followed by time-division multiplex; comparison of channel capacities using single-sideband communication, double-sideband transmission, and PCM, respectively; at moderate and high power levels, greatest number of channels is usually achieved with single-sideband AM.

A36-05702

Phase Modulation Data Transmission System for Use Over Telephone Network, A.P.CLARK. Radio & Electronic Engr v 27 n 3 Mar 1964 p 181-95. Transmitting binary-coded decimal data over

telephone lines; system is called SWIFT (switched-phase transmission) because phase of modulation is switched synchronously; effect of line attenuation and delay upon snr needed to obtain prescribed error rate, using white noise and various data rates; comparison, from test results, of phase modulation with FM for purpose under discussion.

A36-05917

Telemetry Sampling Phenomena, S.POOLE. Electronic Eng v 36 n 435 May 1964 p 296-9. Bandwidth and aliasing of time division multiplexing used in telemetering systems is discussed; search scan method is proposed for waveforms to be visually analyzed using nonperiodic sampling with backward shift.

A36-05929

Solid-State Transmitter Ready for UHF Telemetry, N.DOWNS, B.van SUTPHIN. Electronics v 37 n 17 June 1 1964 p 76-80. Solid state transmitter is described for use in UHF telemetry; varactor frequency multipliers provide 3 w output at 2200 Mc from 12 w source at 244 Mc; associated power supply delivers 37 w d-c at 93% efficiency; complete unit weighs less than 47 oz and occupies less than 50 cu in.

37 Computers and Electronic Data Processing

A37-05706

Electronic Digital Ratio Equipment, A.RUSSELL. Radio & Electronic Engr v 27 n 3 Mar 1964 p 197-207. Electronic instrument for measuring errors in gear teeth, using comparison of phase measurements of trains of pulses generated by master gear and by test gear; frequency multiplier and divider act on frequency of master-gear pulse train to provide reference frequency needed for phase comparison with test-gear pulse train; this operation uses integers representing gear ratio (master gear/test gear).

A37-05708

Low Cost Electronic Arithmetic, D.W.THOMASSON. Radio & Electronic Engr v 27 n 3 Mar 1964 p 219-28. Electronic digital computer designed for low cost (around 5000 pounds, Sterling) for computations in fields of commerce and banking, and for processing technical data; binary-coded decimal notation is used; bistable circuits used transistor/diode logic; costs of certain components are given, based on limited production.

A37-05710

Application de l'électronique aux petits ensembles de calcul, M. AUDEBERT, J.BORNE, R.GOUDIN. Onde Electrique v 44 n 443 Feb 1964 p 127-46. Application of electronics to small calculators; electronic computers developed for office use; first model, simulating electromechanical calculator, has complete keyboard and optical display, and counts pulses using semiconductor active components, of which it needs extravagant quantity; to reduce cost, step response of toroids using rectangular-hysteresis-loop ferrites was considered, to determine their suitability for logic, switching, and pulse-counting computer components using transistors and semiconductor diodes; final design extensively employs such ferrite-core toroids, uses reduced keyboard and matrix-type visual read-out; arithmetic unit operates in binary-coded biquinary notation.

A37-05912

Majority Voting Protects Aircraft and Pilot, H.MOREINES, R. WORTHINGTON, F.THOMAS. Electronics v 37 n 16 May 18 1964 p 85-91. On-line analog majority voting circuits and off-line analog monitors are described for fail-operative systems in flight control, using integrated circuit techniques; triple redundancy is used to increase reliability.

A37-05925

Case for Magnetic Logic, J.ROGERS, J.KING. Electronics v 37 n 17 June 1 1964 p 40-7. Properties of magnetic elements and application to logic circuits are discussed; using 4-phase inhibit logic, magnetic elements are applied to steering circuitry, computer timing, sequential switching, and to memory addressing.

SUBJECT INDEX

- ACOUSTIC MEASUREMENT
ULTRASONIC WAVE AMPLIFICATION IN CADMIUM SULFIDE
PIEZOELECTRIC CRYSTALS 64-06 A35-05901
- AIR GAPS
INDUCTANCE COEFFICIENTS OF ROTATING ELECTRIC
MACHINERY EXPRESSED IN TERMS OF WINDING SPACE
HARMONICS AND AIR GAP PERMEABILITY 64-06 A08-05307
- EXCITATION OF OSCILLATIONS IN A-C INDUCTION MOTORS
AND COMPUTATION OF EXCITATION IN YOKES AND
AIR GAPS 64-06 A08-05508
- ALTERNATORS
RECTIFIER AND ERROR-DETECTOR USING SEMICONDUCTOR
DIODES FOR AUTOMATIC VOLTAGE REGULATORS OF
ALTERNATORS 64-06 A06-05918
- MEASUREMENT OF ELECTRIC RESISTANCE IN ROTORS OF
ALTERNATORS DURING OPERATION 64-06 A08-05324
- AMALGAMS
EMULSIFICATION OF INDIUM AMALGAM BY
ELECTRONEGATIVE GAS FOR USE AS LIQUID COMMUTATOR
BRUSHES IN HOMOPOLAR ELECTRIC MACHINERY 64-06 A08-05322
- AMPLIFICATION
ULTRASONIC WAVE AMPLIFICATION IN CADMIUM SULFIDE
PIEZOELECTRIC CRYSTALS 64-06 A35-05901
- AMPLIFIERS
SILICON PLANAR EPITAXIAL TRANSISTORS AS FAST
LOW-LEVEL ELECTRONIC SWITCHES 64-06 A24-05909
- DEGENERATE CROSSED-FIELD CYCLOTRON WAVE PARAMETRIC
AMPLIFIER WITH 3 COAXIAL CAVITIES 64-06 A25-05906
- DESIGN OF LINEAR BROADBAND MICROPOWER TRANSISTOR
AMPLIFIERS 64-06 A25-05911
- DESIGN OF TRANSISTORIZED LOW-DRIFT D-C AMPLIFIERS
64-06 A25-05919
- HYBRID D-C AMPLIFIERS WITH HIGH INPUT IMPEDANCE
64-06 A25-05920
- PULSE AMPLIFIER WITH FEEDBACK USING DIFFERENCE
AMPLIFIER AND COMMON EMITTER STAGE FOR LOW
TEMPERATURE COEFFICIENT 64-06 A25-05923
- COMPARISON OF CASCODE, COMMON EMITTER, WORST CASE,
AND FEEDBACK MICROPOWER TRANSISTOR AMPLIFIERS
64-06 A25-05926
- LINEAR CLASS B TRANSISTOR SINGLE SIDEBAND AMPLIFIER
FOR 30 MC 64-06 A25-05928
- GRAPHICAL SOLUTION FOR DETERMINATION OF NOISE LEVEL
IN RADIO AMPLIFIERS 64-06 A26-03750
- TRANSISTOR LEAKAGE CURRENT METER WITH D-C AMPLIFIER
FOR IN-CIRCUIT MEASUREMENT 64-06 A26-05927
- LOW-NOISE PREAMPLIFIER-AMPLIFIER CHAIN FOR USE WITH
PROPORTIONAL COUNTER IN RADIOACTIVE-DECAY
MEASUREMENT 64-06 A31-05714
- AMPLITUDE MODULATION
AMPLITUDE MODULATION OF NARROWBAND RANDOM NOISE
CARRIER AT OPTICAL FREQUENCIES 64-06 A29-05903
- ANALOG COMPUTERS
ANALOG INTEGRATED FAIL-OPERATIVE VOTER CIRCUITS IN
AUTOMATIC FLIGHT CONTROL 64-06 A37-05912
- AUDIO FREQUENCY
COMPARISON OF NORMALIZED RESPONSES OF LOW-PASS
FILTERS DESIGNED BY 5 METHODS, AND OSCILLOGRAMS
FROM PRACTICAL CIRCUITS 64-06 A25-05703
- AUTOMATIC CONTROL
AUTOMATIC DISPATCHING AND DATA PROCESSING SYSTEM
FOR CONTROLLING ELECTRIC TRANSMISSION AND
GENERATION 64-06 A10-05302
- AUTOMATIC OPERATION OF ELECTRIC TRAINS IN GREAT
BRITAIN BY MEANS OF ELECTRONIC CONTROLS BASED
ON CODED PULSES 64-06 A13-05506
- ANALOG INTEGRATED FAIL-OPERATIVE VOTER CIRCUITS IN
AUTOMATIC FLIGHT CONTROL 64-06 A37-05912
- AUTOTRANSFORMERS
AERIAL SUBSTATIONS FOR ELECTRIC DISTRIBUTION SYSTEM
64-06 A10-05520
- BALANCES, MAGNETOMETERS
DESIGN OF UNIVERSAL MAGNETOMETER WITH SPECIALLY
DEvised BALANCE AND ERROR COMPENSATING CIRCUIT
TO EXTEND RANGE OF ITS APPLICATION 64-06 A06-05319
- BALLOONS
MEASUREMENT OF HF RADIATION PATTERNS USING BALLOON
SUSPENDED TRANSMITTER AND DIPOLE 64-06 A30-05922
- BATTERY DRIVE
USE OF SEMICONDUCTOR RECTIFIERS FOR OPERATION AND
DYNAMIC BRAKING OF ELECTRIC TRAINS IN GERMANY
64-06 A13-05509
- BIOMEDICAL MEASUREMENTS
PULSE REPETITION RATE COUNTER FOR CARDIOTACHOMETRY
64-06 A31-05916
- BOOSTER ROCKETS
ULTRASONIC TESTING OF GUIDED MISSILE BOOSTER
ROCKETS 64-06 A35-05526
- BRAKING
USE OF ELECTRIC BRAKING AND RESYNCHRONIZATION TO
IMPROVE DYNAMIC STABILITY OF HYDROELECTRIC
GENERATORS 64-06 A08-05316
- USE OF SEMICONDUCTOR RECTIFIERS FOR OPERATION AND
DYNAMIC BRAKING OF ELECTRIC TRAINS IN GERMANY
64-06 A13-05509
- BREAKDOWN, ELECTRICAL INSULATION
IMPULSE BREAKDOWN OF OIL-IMPREGNATED PAPER AND
POLYETHYLENE USED AS DIELECTRIC IN OIL-FILLED
ELECTRIC CABLES 64-06 A03-05312
- BREAKDOWN DISTRIBUTION OF LONG GAPS IN ELECTRIC
TRANSFORMER OIL 64-06 A03-05313
- BREAKDOWN VOLTAGES OF FREON GASES AND SULFUR
HEXAFLUORIDE AT LOW PRESSURES 64-06 A03-05321
- BROADBAND AMPLIFIERS
DESIGN OF LINEAR BROADBAND MICROPOWER TRANSISTOR
AMPLIFIERS 64-06 A25-05911
- COMPARISON OF CASCODE, COMMON EMITTER, WORST CASE,
AND FEEDBACK MICROPOWER TRANSISTOR AMPLIFIERS
64-06 A25-05926
- LINEAR CLASS B TRANSISTOR SINGLE SIDEBAND AMPLIFIER
FOR 30 MC 64-06 A25-05928
- BRUSHES, LIQUID
EMULSIFICATION OF INDIUM AMALGAM BY
ELECTRONEGATIVE GAS FOR USE AS LIQUID COMMUTATOR
BRUSHES IN HOMOPOLAR ELECTRIC MACHINERY 64-06 A08-05322
- BUS CONDUCTORS
ANALYSIS OF VIBRATION AND ELECTROMAGNETIC STRESSES
IN ELECTRIC BUS BARS 64-06 A04-05512
- CADMIUM SULFIDE
ULTRASONIC WAVE AMPLIFICATION IN CADMIUM SULFIDE
PIEZOELECTRIC CRYSTALS 64-06 A35-05901
- CALCULATORS
ELECTRONIC OFFICE-TYPE COMPUTER WITH REDUCED
KEYBOARD AND VISUAL MATRIX-TYPE READOUT
64-06 A37-05710
- CAPACITANCE
ANALOG COMPUTER CALCULATION OF TERMINAL VOLTAGE
RISE CAUSED BY SELF-EXCITATION OF SYNCHRONOUS
GENERATORS WHEN CONNECTED TO CAPACITIVE LOAD
64-06 A08-05308
- CAPACITORS
ELECTRIC PROPERTIES OF HIGH-TEMPERATURE LOW-LOSS
CAPACITORS USING DU PONT HT-1 AROMATIC POLYAMIDE
SHEETS TO SEPARATE ALUMINUM ELECTRODES
64-06 A04-05314
- HYBRID D-C AMPLIFIERS WITH HIGH INPUT IMPEDANCE
64-06 A25-05920
- CARDIOGRAPHY
PULSE REPETITION RATE COUNTER FOR CARDIOTACHOMETRY
64-06 A31-05916
- CARRIER SYSTEMS, ELECTRIC POWER TRANSMISSION
PROTECTIVE RELAYS FOR 500 KV TRANSMISSION LINES
64-06 A10-05504
- CATHODES
FABRICATION OF SEMICONDUCTOR CATHODES FOR FIELD
EMISSION ELECTRON MICROSCOPES, BY CUTTING AND
ETCHING 64-06 A31-05333
- CAVITY RESONATORS

- EXPERIMENTAL DESIGN OF COMPACT TUNABLE FILTERS
64-06 A25-05528
- DEGENERATE CROSSED-FIELD CYCLOTRON WAVE PARAMETRIC
AMPLIFIER WITH 3 COAXIAL CAVITIES 64-06 A25-05906
- CHANNEL CAPACITY
EFFECTS OF METHODS OF MODULATION AND MULTIPLEXING
ON CHANNEL CAPACITY OF TELEPHONE LINES 64-06 A36-05701
- CIRCUIT BREAKERS
VOLTAGE DISTRIBUTION AND TESTING OF CAPACITANCE
CONTROLLED CIRCUIT BREAKERS 64-06 A06-05513
- CIRCUIT PROTECTION
PROTECTIVE RELAYS FOR 500 KV TRANSMISSION LINES
64-06 A10-05504
- CLEANING, INSULATORS
USE OF HORIZONTAL POST-TYPE INSULATORS TO REDUCE
INSULATOR CLEANING PROBLEM 64-06 A10-05523
- CLOSED-CIRCUIT TELEVISION
STANDARDIZATION CONSIDERATIONS FOR BRITISH PAY TV
64-06 A33-05704
- BRITISH PAY TV 64-06 A33-05705
- COLOR TELEVISION
EFFECT OF PICTURE-TUBE TYPE AND FRENCH RASTER
STANDARDS ON DESIGN AND SERVICING OF COLOR TV
RECEIVERS 64-06 A33-05711
- COMMUTATORS
EMULSIFICATION OF INDIUM AMALGAM BY
ELECTRONEGATIVE GAS FOR USE AS LIQUID COMMUTATOR
BRUSHES IN HOMOPOLAR ELECTRIC MACHINERY
64-06 A08-05322
- SILICON PLANAR EPITAXIAL TRANSISTORS AS FAST
LOW-LEVEL ELECTRONIC SWITCHES 64-06 A24-05909
- COMPUTER COMPONENTS
MAGNETIC ELEMENTS APPLIED TO COMPUTER LOGIC
CIRCUITS 64-06 A37-05925
- COMPUTERS
SEMICONDUCTOR POWER RECTIFIER DIODE
CHARACTERISTICS, AND PRODUCTION QUALITY CONTROL
USING COMPUTERS 64-06 A04-05502
- AUTOMATIC DISPATCHING AND DATA PROCESSING SYSTEM
FOR CONTROLLING ELECTRIC TRANSMISSION AND
GENERATION 64-06 A10-05302
- DIGITAL COMPUTER PROGRAM FOR ANALYSIS OF AXIALLY
SYMMETRIC AND SHEET BEAM ELECTRODES WITH
EMITTING SURFACE 64-06 A24-05905
- DIGITAL COMPUTER PROGRAM FOR DESIGN OF 4-LEVEL
LASERS EMPLOYING NEODYMIUM DOPED GLASS
64-06 A32-05908
- ELECTRONIC MEANS FOR MEASURING ERRORS IN GEAR TEETH
USING COMPUTER CIRCUITS, AND METHOD OF
MULTIPLYING FREQUENCY BY GEAR RATIO
64-06 A37-05706
- LOW-COST ELECTRONIC DIGITAL COMPUTER
64-06 A37-05708
- ELECTRONIC OFFICE-TYPE COMPUTER WITH REDUCED
KEYBOARD AND VISUAL MATRIX-TYPE READOUT
64-06 A37-05710
- CONFORMAL MAPPING
USE OF CONFORMAL MAPPING IN ANALYSIS OF MAGNETIC
FIELDS 64-06 A02-05325
- CONTAMINATION, INSULATORS
USE OF HORIZONTAL POST-TYPE INSULATORS TO REDUCE
INSULATOR CLEANING PROBLEM 64-06 A10-05523
- CONTROL, ELECTRIC
DESIGN AND FABRICATION OF OVONIC THRESHOLD
SWITCHES FROM SEMICONDUCTORS WITHOUT JUNCTION
64-06 A04-05327
- STABILITY AND DYNAMIC-RESPONSE ANALYSIS
OF SYNCHRONOUS ELECTRIC MACHINERY BY ROOT LOCUS
METHOD 64-06 A08-05306
- REVIEW OF STATIC, VARIABLE SPEED A-C ELECTRIC
DRIVES FOR MACHINE TOOLS AND TEXTILE MACHINERY
64-06 A08-05326
- CONTROL, ELECTRONIC
AUTOMATIC OPERATION OF ELECTRIC TRAINS IN GREAT
BRITAIN BY MEANS OF ELECTRONIC CONTROLS BASED
ON CODED PULSES 64-06 A13-05506
- MICROWAVE SEMICONDUCTOR CONTROL DEVICES
64-06 A24-05529
- CONTROL, NUCLEAR POWER GENERATION
CONTROL OF PRESSURIZED-WATER-REACTOR NUCLEAR POWER
PLANT 64-06 A09-05525
- CORROSION RESISTANCE
COSTS OF METALLIZED PROTECTIVE COATINGS FOR
CORROSION RESISTANCE IN CONDUITS AND ON POLE
HARDWARE 64-06 A04-05501
- COUNTERS
LOW-NOISE PREAMPLIFIER-AMPLIFIER CHAIN FOR USE WITH
PROPORTIONAL COUNTER IN RADIOACTIVE-DECAY
MEASUREMENT 64-06 A31-05714
- PULSE REPETITION RATE COUNTER FOR CARDIOTACHOMETRY
64-06 A31-05916
- COUPLING CIRCUITS
EXPERIMENTAL DESIGN OF COMPACT TUNABLE FILTERS
64-06 A25-05528
- CURRENT REGULATORS
HIGH RESISTANCE CURRENT SOURCE USING TUBES OR
TRANSISTORS FOR INTEGRATORS, SAWTOOTH
GENERATORS, MEASURING INSTRUMENTS, ETC
64-06 A27-05521
- ANALYSIS OF TRANSISTOR SERIES REGULATORS FOR POWER
SUPPLIES, IN TERMS OF HYBRID PARAMETERS
64-06 A27-05707
- DATA TRANSMISSION
PHASE MODULATION SYSTEM USING SYNCHRONOUS PHASE
SWITCHING FOR DATA TRANSMISSION OVER TELEPHONE
LINES 64-06 A36-05702
- DEMAGNETIZATION
EFFECT OF NONLINEARITY OF MAGNETIZATION CURVES ON
LEAKAGE FLUX DEMAGNETIZATION OF ELECTRIC
TRANSFORMERS 64-06 A04-05320
- DETECTORS
SAMPLING EFFECTS ON WEAK-SIGNAL DETECTION
64-06 A25-05713
- TUNED DETECTORS USING TWIN-T CIRCUIT BASED ON
TRANSISTOR AMPLIFIERS 64-06 A25-05921
- DETERIORATION RESISTANCE, ELECTRICAL INSULATION
NEW METHOD FOR DETERMINING DETERIORATION OF
ELECTRICAL INSULATION BY OXYGEN INJECTION
64-06 A03-05507
- DIELECTRIC BREAKDOWN
IMPULSE BREAKDOWN OF OIL-IMPREGNATED PAPER AND
POLYETHYLENE USED AS DIELECTRIC IN OIL-FILLED
ELECTRIC CABLES 64-06 A03-05312
- BREAKDOWN DISTRIBUTION OF LONG GAPS IN ELECTRIC
TRANSFORMER OIL 64-06 A03-05313
- BREAKDOWN VOLTAGES OF FREON GASES AND SULFUR
HEXAFLUORIDE AT LOW PRESSURES 64-06 A03-05321
- DIELECTRICS, FILMS
TRANSMISSION MODES OF SURFACE WAVES ON ANISOTROPIC
DIELECTRICS WITH EXPERIMENTAL DETERMINATION OF
APPARENT REFRACTIVITY OF SUCH WAVEGUIDE
STRUCTURES 64-06 A30-05712
- DIMMERS, LIGHTING
DESIGN AND FABRICATION OF OVONIC THRESHOLD
SWITCHES FROM SEMICONDUCTORS WITHOUT JUNCTION
64-06 A04-05327
- DIODES, MANUFACTURE
SEMICONDUCTOR POWER RECTIFIER DIODE
CHARACTERISTICS, AND PRODUCTION QUALITY CONTROL
USING COMPUTERS 64-06 A04-05502
- DIRECT POWER GENERATION
ANALYSIS OF DISTRIBUTED SUPERCONDUCTIVE CONVERTERS
FOR DIRECT GENERATION OF LOW FREQUENCY
ALTERNATING CURRENT 64-06 A07-05330
- APPLICATION AND MANUFACTURE OF PHOTOVOLTAIC CELLS
FOR SOLAR ENERGY UTILIZATION 64-06 A07-05503
- MAGNETOHYDRODYNAMIC GENERATION OF ELECTRIC POWER IN
NUCLEAR OR CONVENTIONAL POWER PLANTS 64-06 A07-05524
- THERMIONIC CONVERTERS FOR USE IN NUCLEAR POWER
PLANTS 64-06 A07-05914
- DISPATCHING SYSTEMS
AUTOMATIC DISPATCHING AND DATA PROCESSING SYSTEM
FOR CONTROLLING ELECTRIC TRANSMISSION AND
GENERATION 64-06 A10-05302
- DISTRIBUTION LINES
AERIAL SUBSTATIONS FOR ELECTRIC DISTRIBUTION SYSTEM
64-06 A10-05520
- USE OF HORIZONTAL POST-TYPE INSULATORS TO REDUCE
INSULATOR CLEANING PROBLEM 64-06 A10-05523
- DISTRIBUTION LINES, RIGHT-OF-WAY
CHEMICAL VEGETATION CONTROL IN ELECTRIC
TRANSMISSION AND DISTRIBUTION SYSTEMS
RIGHT-OF-WAY 64-06 A10-05522

- DOUBLE SIDEBAND TRANSMISSION
EFFECTS OF METHODS OF MODULATION AND MULTIPLEXING
ON CHANNEL CAPACITY OF TELEPHONE LINES 64-06 A36-05701
- DRIFT
DESIGN OF TRANSISTORIZED LOW-DRIFT D-C AMPLIFIERS 64-06 A25-05919
- DYNAMIC BRAKING
USE OF SEMICONDUCTOR RECTIFIERS FOR OPERATION AND
DYNAMIC BRAKING OF ELECTRIC TRAINS IN GERMANY 64-06 A13-05509
- ECHO SOUNDING
FISH DETECTION AND RECORDING FOR TRAWLERS USING
ULTRASONIC METHODS 64-06 A35-05527
- ELECTRICAL INSULATION
NEW METHOD FOR DETERMINING DETERIORATION OF
ELECTRICAL INSULATION BY OXYGEN INJECTION 64-06 A03-05507
- ELECTRICAL INSULATION, BREAKDOWN
IMPULSE BREAKDOWN OF OIL-IMPREGNATED PAPER AND
POLYETHYLENE USED AS DIELECTRIC IN OIL-FILLED
ELECTRIC CABLES 64-06 A03-05312
BREAKDOWN DISTRIBUTION OF LONG GAPS IN ELECTRIC
TRANSFORMER OIL 64-06 A03-05313
BREAKDOWN VOLTAGES OF FREON GASES AND SULFUR
HEXAFLUORIDE AT LOW PRESSURES 64-06 A03-05321
- ELECTRICAL MEASUREMENTS
VOLTAGE DISTRIBUTION AND TESTING OF CAPACITANCE
CONTROLLED CIRCUIT BREAKERS 64-06 A06-05513
RECTIFIER AND ERROR-DETECTOR USING SEMICONDUCTOR
DIODES FOR AUTOMATIC VOLTAGE REGULATORS OF
ALTERNATORS 64-06 A06-05918
MEASUREMENT OF EQUIVALENT CIRCUIT CONSTANTS FOR
CALCULATING STALL TORQUE OF 2-PHASE SERVOMOTOR 64-06 A08-05311
MEASUREMENT OF ELECTRIC RESISTANCE IN ROTORS OF
ALTERNATORS DURING OPERATION 64-06 A08-05324
MEASUREMENT OF CORONA AND RADIO INTERFERENCE ON
400 KV A-C BUNDLED CONDUCTOR ELECTRIC
TRANSMISSION LINE 64-06 A10-05301
HYBRID D-C AMPLIFIERS WITH HIGH INPUT IMPEDANCE 64-06 A25-05920
GRAPHICAL SOLUTION FOR DETERMINATION OF NOISE LEVEL
IN RADIO AMPLIFIERS 64-06 A26-03750
- ELECTRIC APPLIANCES
DESIGN AND FABRICATION OF OVONIC THRESHOLD
SWITCHES FROM SEMICONDUCTORS WITHOUT JUNCTION 64-06 A04-05327
- ELECTRIC CABLES
IMPULSE BREAKDOWN OF OIL-IMPREGNATED PAPER AND
POLYETHYLENE USED AS DIELECTRIC IN OIL-FILLED
ELECTRIC CABLES 64-06 A03-05312
- ELECTRIC CABLES, TERMINATIONS
OVERVOLTAGES CAUSED BY LIGHTNING STROKE IN CABLE-
OVERHEAD TRANSMISSION LINE SYSTEMS 64-06 A10-05304
- ELECTRIC CIRCUITS, FORCED OSCILLATIONS
STUDY OF CHARACTERISTICS OF FORCED OSCILLATIONS
IN FLUCTUATING LINEAR CIRCUITS USING STATISTICAL
METHODS 64-06 A25-05531
- ELECTRIC CONNECTORS, FAILURE
TECHNIQUES OF EVALUATING AND PREDICTING ELECTRIC
CONNECTOR PERFORMANCE, BASED ON APPLICATION OF
PRINCIPLES OF STRESS ANALYSIS 64-06 A04-05329
- ELECTRIC CONTROL
DESIGN AND FABRICATION OF OVONIC THRESHOLD
SWITCHES FROM SEMICONDUCTORS WITHOUT JUNCTION 64-06 A04-05327
- STABILITY AND DYNAMIC-RESPONSE ANALYSIS
OF SYNCHRONOUS ELECTRIC MACHINERY BY ROOT LOCUS
METHOD 64-06 A08-05306
- REVIEW OF STATIC, VARIABLE SPEED A-C ELECTRIC
DRIVES FOR MACHINE TOOLS AND TEXTILE MACHINERY 64-06 A08-05326
- ELECTRIC CONVERTERS
REVIEW OF STATIC, VARIABLE SPEED A-C ELECTRIC
DRIVES FOR MACHINE TOOLS AND TEXTILE MACHINERY 64-06 A08-05326
- FILTERS FOR SUPPRESSING HARMONICS CAUSED BY
CONVERTERS IN INTERCONNECTED A-C AND D-C
ELECTRIC TRANSMISSION NETWORKS 64-06 A10-05303
- ELECTRIC DRIVES
- REVIEW OF STATIC, VARIABLE SPEED A-C ELECTRIC
DRIVES FOR MACHINE TOOLS AND TEXTILE MACHINERY 64-06 A08-05326
- ELECTRIC FIELDS
ANALYSIS OF ELECTRIC FIELD OF CAP INSULATORS 64-06 A03-05510
- ELECTRIC FILTERS
FILTERS FOR SUPPRESSING HARMONICS CAUSED BY
CONVERTERS IN INTERCONNECTED A-C AND D-C
ELECTRIC TRANSMISSION NETWORKS 64-06 A10-05303
- EXPERIMENTAL DESIGN OF COMPACT TUNABLE FILTERS 64-06 A25-05528
- COMPARISON OF NORMALIZED RESPONSES OF LOW-PASS
FILTERS DESIGNED BY 5 METHODS, AND OSCILLOGRAMS
FROM PRACTICAL CIRCUITS 64-06 A25-05703
- ELECTRIC FURNACES
SILICON CARBIDE HEATING RODS FOR ELECTRIC FURNACES 64-06 A18-05515
- ELECTRIC GENERATORS
RECTIFIER AND ERROR-DETECTOR USING SEMICONDUCTOR
DIODES FOR AUTOMATIC VOLTAGE REGULATORS OF
ALTERNATORS 64-06 A06-05918
ANALOG COMPUTER CALCULATION OF TERMINAL VOLTAGE
RISE CAUSED BY SELF-EXCITATION OF SYNCHRONOUS
GENERATORS WHEN CONNECTED TO CAPACITIVE LOAD 64-06 A08-05308
ANALYSIS OF UNBALANCED OPERATION OF A-C SYNCHRONOUS
ELECTRIC MACHINERY, AND CALCULATION OF
TRANSIENTS 64-06 A08-05315
- ELECTRIC GENERATORS, ELECTRIC RESISTANCE
MEASUREMENT OF ELECTRIC RESISTANCE IN ROTORS OF
ALTERNATORS DURING OPERATION 64-06 A08-05324
- ELECTRIC GENERATORS, MAGNETOHYDRODYNAMIC
MAGNETOHYDRODYNAMIC GENERATION OF ELECTRIC POWER IN
NUCLEAR OR CONVENTIONAL POWER PLANTS 64-06 A07-05524
- ELECTRIC GENERATORS, PULSE
VOLTAGE MULTIPLICATION FOR HIGH VOLTAGE
ELECTROSTATIC PULSE GENERATORS BY VOLTAGE
REVERSAL 64-06 A08-05310
- ELECTRIC GENERATORS, SOLAR
APPLICATION AND MANUFACTURE OF PHOTOVOLTAIC CELLS
FOR SOLAR ENERGY UTILIZATION 64-06 A07-05503
- ELECTRIC GENERATORS, STABILITY
STABILITY AND DYNAMIC-RESPONSE ANALYSIS
OF SYNCHRONOUS ELECTRIC MACHINERY BY ROOT LOCUS
METHOD 64-06 A08-05306
- USE OF ELECTRIC BRAKING AND RESYNCHRONIZATION TO
IMPROVE DYNAMIC STABILITY OF HYDROELECTRIC
GENERATORS 64-06 A08-05316
- ELECTRIC LAMPS
SODIUM-VAPOR HIGHWAY LIGHTING IN JAPAN 64-06 A12-05518
- ELECTRIC LIGHTING
DESIGN AND FABRICATION OF OVONIC THRESHOLD
SWITCHES FROM SEMICONDUCTORS WITHOUT JUNCTION 64-06 A04-05327
- ELECTRIC MACHINERY, COMMUTATORS
EMULSIFICATION OF INDIUM AMALGAM BY
ELECTRONEGATIVE GAS FOR USE AS LIQUID COMMUTATOR
BRUSHES IN HOMOPOLAR ELECTRIC MACHINERY 64-06 A08-05322
- ELECTRIC MACHINERY, INDUCTANCE
INDUCTANCE COEFFICIENTS OF ROTATING ELECTRIC
MACHINERY EXPRESSED IN TERMS OF WINDING SPACE
HARMONICS AND AIR GAP PERMEABILITY 64-06 A08-05307
- ELECTRIC MACHINERY, SYNCHRONOUS
STABILITY AND DYNAMIC-RESPONSE ANALYSIS
OF SYNCHRONOUS ELECTRIC MACHINERY BY ROOT LOCUS
METHOD 64-06 A08-05306
- ANALOG COMPUTER CALCULATION OF TERMINAL VOLTAGE
RISE CAUSED BY SELF-EXCITATION OF SYNCHRONOUS
GENERATORS WHEN CONNECTED TO CAPACITIVE LOAD 64-06 A08-05308
- ANALYSIS OF UNBALANCED OPERATION OF A-C SYNCHRONOUS
ELECTRIC MACHINERY, AND CALCULATION OF
TRANSIENTS 64-06 A08-05315
- INTERTURN SHORT CIRCUIT PROTECTION OF SYNCHRONOUS
MACHINES USING SPLIT-CONDUCTOR METHOD 64-06 A08-05516
- ELECTRIC MEASURING INSTRUMENTS
DESIGN OF UNIVERSAL MAGNETOMETER WITH SPECIALLY
DEvised BALANCE AND ERROR COMPENSATING CIRCUIT
TO EXTEND RANGE OF ITS APPLICATION 64-06 A06-05319

- MEASUREMENT OF ELECTRIC RESISTANCE IN ROTORS OF ALTERNATORS DURING OPERATION 64-06 A08-05324
- MEASUREMENT OF CORONA AND RADIO INTERFERENCE ON 400 KV A-C BUNDLED CONDUCTOR ELECTRIC TRANSMISSION LINE 64-06 A10-05301
- HYBRID D-C AMPLIFIERS WITH HIGH INPUT IMPEDANCE 64-06 A25-05920
- GRAPHICAL SOLUTION FOR DETERMINATION OF NOISE LEVEL IN RADIO AMPLIFIERS 64-06 A26-03750
- TRANSISTOR LEAKAGE CURRENT METER WITH D-C AMPLIFIER FOR IN-CIRCUIT MEASUREMENT 64-06 A26-05927
- HIGH RESISTANCE CURRENT SOURCE USING TUBES OR TRANSISTORS FOR INTEGRATORS, SAWTOOTH GENERATORS, MEASURING INSTRUMENTS, ETC 64-06 A27-05521
- LOW-NOISE PREAMPLIFIER-AMPLIFIER CHAIN FOR USE WITH PROPORTIONAL COUNTER IN RADIOACTIVE-DECAY MEASUREMENT 64-06 A31-05714
- PULSE REPETITION RATE COUNTER FOR CARDIOTACHOMETRY 64-06 A31-05916
- ULTRASONIC TESTING OF GUIDED MISSILE BOOSTER ROCKETS 64-06 A35-05526
- ELECTRIC MOTORS
- ANALYSIS OF UNBALANCED OPERATION OF A-C SYNCHRONOUS ELECTRIC MACHINERY, AND CALCULATION OF TRANSIENTS 64-06 A08-05315
- ELECTRIC MOTORS, CONTROL
- DESIGN AND FABRICATION OF OVONIC THRESHOLD SWITCHES FROM SEMICONDUCTORS WITHOUT JUNCTION 64-06 A04-05327
- REVIEW OF STATIC, VARIABLE SPEED A-C ELECTRIC DRIVES FOR MACHINE TOOLS AND TEXTILE MACHINERY 64-06 A08-05326
- ELECTRIC MOTORS, INDUCTION
- EXCITATION OF OSCILLATIONS IN A-C INDUCTION MOTORS AND COMPUTATION OF EXCITATION IN YOKES AND AIR GAPS 64-06 A08-05508
- ELECTRIC MOTORS, TORQUE
- MEASUREMENT OF EQUIVALENT CIRCUIT CONSTANTS FOR CALCULATING STALL TORQUE OF 2-PHASE SERVOMOTOR 64-06 A08-05311
- ELECTRIC POWER DISTRIBUTION
- AERIAL SUBSTATIONS FOR ELECTRIC DISTRIBUTION SYSTEM 64-06 A10-05520
- ELECTRIC POWER GENERATION
- RECTIFIER AND ERROR-DETECTOR USING SEMICONDUCTOR DIODES FOR AUTOMATIC VOLTAGE REGULATORS OF ALTERNATORS 64-06 A06-05918
- ANALYSIS OF DISTRIBUTED SUPERCONDUCTIVE CONVERTERS FOR DIRECT GENERATION OF LOW FREQUENCY ALTERNATING CURRENT 64-06 A07-05330
- THERMIONIC CONVERTERS FOR USE IN NUCLEAR POWER PLANTS 64-06 A07-05914
- JAPANESE SEMI-UNDERGROUND HYDROELECTRIC POWER PLANT USING FRANCIS TURBINES 64-06 A09-05519
- ELECTRIC POWER GENERATION, CONTROL
- CONTROL OF PRESSURIZED-WATER-REACTOR NUCLEAR POWER PLANT 64-06 A09-05525
- AUTOMATIC DISPATCHING AND DATA PROCESSING SYSTEM FOR CONTROLLING ELECTRIC TRANSMISSION AND GENERATION 64-06 A10-05302
- ELECTRIC POWER TRANSMISSION
- FILTERS FOR SUPPRESSING HARMONICS CAUSED BY CONVERTERS IN INTERCONNECTED A-C AND D-C ELECTRIC TRANSMISSION NETWORKS 64-06 A10-05303
- OVERVOLTAGES CAUSED BY LIGHTNING STROKE IN CABLE-OVERHEAD TRANSMISSION LINE SYSTEMS 64-06 A10-05304
- PROTECTIVE RELAYS FOR 500 KV TRANSMISSION LINES 64-06 A10-05504
- ELECTRIC POWER TRANSMISSION, LOSSES
- MEASUREMENT OF CORONA AND RADIO INTERFERENCE ON 400 KV A-C BUNDLED CONDUCTOR ELECTRIC TRANSMISSION LINE 64-06 A10-05301
- ELECTRIC POWER TRANSMISSION, TOWERS
- GUYED PORTAL TYPE STEEL TOWERS FOR 220 KV ELECTRIC LINES FOR CONVERSION TO 400 KV 64-06 A10-05305
- ELECTRIC RAILROADS
- AUTOMATIC OPERATION OF ELECTRIC TRAINS IN GREAT BRITAIN BY MEANS OF ELECTRONIC CONTROLS BASED ON CODED PULSES 64-06 A13-05506
- USE OF SEMICONDUCTOR RECTIFIERS FOR OPERATION AND DYNAMIC BRAKING OF ELECTRIC TRAINS IN GERMANY 64-06 A13-05509
- ELECTRIC RELAYS, PROTECTION
- PROTECTIVE RELAYS FOR 500 KV TRANSMISSION LINES
- ELECTRIC RESISTANCE
- DESIGN AND FABRICATION OF OVONIC THRESHOLD SWITCHES FROM SEMICONDUCTORS WITHOUT JUNCTION 64-06 A04-05327
- ELECTRIC RESISTANCE, MEASUREMENT
- MEASUREMENT OF ELECTRIC RESISTANCE IN ROTORS OF ALTERNATORS DURING OPERATION 64-06 A08-05324
- ELECTRIC SWITCHES, SEMICONDUCTOR
- DESIGN AND FABRICATION OF OVONIC THRESHOLD SWITCHES FROM SEMICONDUCTORS WITHOUT JUNCTION 64-06 A04-05327
- DESIGN AND FABRICATION OF HIGH CURRENT SILICON MESA SWITCHING TRANSISTORS WITH COMB-SHAPED EMITTER AND BASE ELECTRODES 64-06 A24-05332
- SILICON PLANAR EPITAXIAL TRANSISTORS AS FAST LOW-LEVEL ELECTRONIC SWITCHES 64-06 A24-05909
- ELECTRIC SWITCHES, SPRINGS
- PROPERTIES AND APPLICATION OF NICKEL AND NICKEL ALLOYS IN ELECTRICAL AND ELECTRONIC INDUSTRY 64-06 A03-05511
- ELECTRIC WINDINGS
- BEAM-GUIDE MAGNETS FOR ELECTRON SYNCHROTRON 64-06 A03-05514
- DESIGN OF LARGE ELECTRIC TRANSFORMERS FOR REDUCED SIZE, LOWER LOSSES AND BETTER TRANSPORTABILITY 64-06 A04-05309
- INDUCTANCE COEFFICIENTS OF ROTATING ELECTRIC MACHINERY EXPRESSED IN TERMS OF WINDING SPACE HARMONICS AND AIR GAP PERMEABILITY 64-06 A08-05307
- ELECTRODES
- DESIGN AND FABRICATION OF HIGH CURRENT SILICON MESA SWITCHING TRANSISTORS WITH COMB-SHAPED EMITTER AND BASE ELECTRODES 64-06 A24-05332
- DIGITAL COMPUTER PROGRAM FOR ANALYSIS OF AXIALLY SYMMETRIC AND SHEET BEAM ELECTRODES WITH EMITTING SURFACE 64-06 A24-05905
- ELECTROMAGNETIC FIELDS
- PROTECTION OF COMMUNICATIONS EQUIPMENT FROM ELECTROMAGNETIC PULSES PRODUCED BY NUCLEAR EXPLOSIONS 64-06 A29-05915
- ELECTRONIC COMMUTATORS
- SILICON PLANAR EPITAXIAL TRANSISTORS AS FAST LOW-LEVEL ELECTRONIC SWITCHES 64-06 A24-05909
- ELECTRONIC CONTROL
- AUTOMATIC OPERATION OF ELECTRIC TRAINS IN GREAT BRITAIN BY MEANS OF ELECTRONIC CONTROLS BASED ON CODED PULSES 64-06 A13-05506
- MICROWAVE SEMICONDUCTOR CONTROL DEVICES 64-06 A24-05529
- ELECTRONICS, INDUSTRY
- EDUCATION, TRAINING, AND UPGRADING OF TECHNICAL PERSONNEL IN FRENCH ELECTRONICS INDUSTRIES 64-06 A21-05709
- ELECTRONIC SWITCHES
- DESIGN AND FABRICATION OF HIGH CURRENT SILICON MESA SWITCHING TRANSISTORS WITH COMB-SHAPED EMITTER AND BASE ELECTRODES 64-06 A24-05332
- SILICON PLANAR EPITAXIAL TRANSISTORS AS FAST LOW-LEVEL ELECTRONIC SWITCHES 64-06 A24-05909
- MAGNETIC ELEMENTS APPLIED TO COMPUTER LOGIC CIRCUITS 64-06 A37-05925
- ELECTRON MICROSCOPES
- FABRICATION OF SEMICONDUCTOR CATHODES FOR FIELD EMISSION ELECTRON MICROSCOPES, BY CUTTING AND ETCHING 64-06 A31-05333
- ELECTRON TUBES
- FABRICATION OF SEMICONDUCTOR CATHODES FOR FIELD EMISSION ELECTRON MICROSCOPES, BY CUTTING AND ETCHING 64-06 A31-05333
- EFFECT OF PICTURE-TUBE TYPE AND FRENCH RASTER STANDARDS ON DESIGN AND SERVICING OF COLOR TV RECEIVERS 64-06 A33-05711
- ELECTRON TUBES, ELEMENTS
- PROPERTIES AND APPLICATION OF NICKEL AND NICKEL ALLOYS IN ELECTRICAL AND ELECTRONIC INDUSTRY 64-06 A03-05511
- ENVIRONMENT
- TECHNIQUES OF EVALUATING AND PREDICTING ELECTRIC CONNECTOR PERFORMANCE, BASED ON APPLICATION OF PRINCIPLES OF STRESS ANALYSIS 64-06 A04-05329
- EQUIVALENT CIRCUITS
- MEASUREMENT OF EQUIVALENT CIRCUIT CONSTANTS FOR

- CALCULATING STALL TORQUE OF 2-PHASE SERVOMOTOR
64-06 A08-05311
- ERROR COMPENSATION
DESIGN OF UNIVERSAL MAGNETOMETER WITH SPECIALLY
DEvised BALANCE AND ERROR COMPENSATING CIRCUIT
TO EXTEND RANGE OF ITS APPLICATION
64-06 A06-05319
- ERROR DETECTION
TIME-DIVISION-MULTIPLEXING TELEMETERING SYSTEM FOR
INDUSTRIAL APPLICATIONS
64-06 A36-05328
- EXCITATION
ANALOG COMPUTER CALCULATION OF TERMINAL VOLTAGE
RISE CAUSED BY SELF-EXCITATION OF SYNCHRONOUS
GENERATORS WHEN CONNECTED TO CAPACITIVE LOAD
64-06 A08-05308
- EXCITATION OF OSCILLATIONS IN A-C INDUCTION MOTORS
AND COMPUTATION OF EXCITATION IN YOKES AND
AIR GAPS
64-06 A08-05508
- EXCITATION WINDINGS, BEAM-GUIDE MAGNETS
BEAM-GUIDE MAGNETS FOR ELECTRON SYNCHROTRON
64-06 A03-05514
- EXTRA HIGH VOLTAGE
VOLTAGE MULTIPLICATION FOR HIGH VOLTAGE
ELECTROSTATIC PULSE GENERATORS BY VOLTAGE
REVERSAL
64-06 A08-05310
- GUYED PORTAL TYPE STEEL TOWERS FOR 220 KV ELECTRIC
LINES FOR CONVERSION TO 400 KV
64-06 A10-05305
- PROTECTIVE RELAYS FOR 500 KV TRANSMISSION LINES
64-06 A10-05504
- FEEDBACK AMPLIFIERS
PULSE AMPLIFIER WITH FEEDBACK USING DIFFERENCE
AMPLIFIER AND COMMON EMITTER STAGE FOR LOW
TEMPERATURE COEFFICIENT
64-06 A25-05923
- FERRITES
ELECTRONIC OFFICE-TYPE COMPUTER WITH REDUCED
KEYBOARD AND VISUAL MATRIX-TYPE READOUT
64-06 A37-05710
- FERRROMAGNETIC MATERIALS
DESIGN OF UNIVERSAL MAGNETOMETER WITH SPECIALLY
DEvised BALANCE AND ERROR COMPENSATING CIRCUIT
TO EXTEND RANGE OF ITS APPLICATION
64-06 A06-05319
- FIELD STRENGTH, PLOTTING
MEASUREMENT OF HF RADIATION PATTERNS USING BALLOON
SUSPENDED TRANSMITTER AND DIPOLE
64-06 A30-05922
- FISH, DETECTION
FISH DETECTION AND RECORDING FOR TRAWLERS USING
ULTRASONIC METHODS
64-06 A35-05527
- FLAME SPRAYING
COSTS OF METALLIZED PROTECTIVE COATINGS FOR
CORROSION RESISTANCE IN CONDUITS AND ON POLE
HARDWARE
64-06 A04-05501
- FLASHOVER
USE OF HORIZONTAL POST-TYPE INSULATORS TO REDUCE
INSULATOR CLEANING PROBLEM
64-06 A10-05523
- FLIGHT CONTROL
ANALOG INTEGRATED FAIL-OPERATIVE VOTER CIRCUITS IN
AUTOMATIC FLIGHT CONTROL
64-06 A37-05912
- FORCED OSCILLATIONS
STUDY OF CHARACTERISTICS OF FORCED OSCILLATIONS IN
FLUCTUATING LINEAR CIRCUITS USING STATISTICAL
METHODS
64-06 A25-05531
- FREON, DIELECTRIC BREAKDOWN
BREAKDOWN VOLTAGES OF FREON GASES AND SULFUR
HEXAFLUORIDE AT LOW PRESSURES
64-06 A03-05321
- FREQUENCY DIVIDERS
ELECTRONIC MEANS FOR MEASURING ERRORS IN GEAR TEETH
USING COMPUTER CIRCUITS, AND METHOD OF
MULTIPLYING FREQUENCY BY GEAR RATIO
64-06 A37-05706
- FREQUENCY MODULATION
ANGLE MODULATION OF NARROWBAND GAUSSIAN NOISE
CARRIER WITH SSB MULTIPLEX NARROWBAND CHANNELS
64-06 A29-05904
- FREQUENCY SLOPE MODULATION SYSTEM USING FREQUENCY
MODULATED CHIRP RADAR SIGNAL FOR RADIO
COMMUNICATION SYSTEMS
64-06 A29-05913
- PULSE COMPRESSION PREDISTORTION FUNCTION FOR
SIDELOBE REDUCTION IN RADAR PULSES
64-06 A34-05902
- FREQUENCY MULTIPLIERS
DESIGN OF STATIC ELECTROMAGNETIC FREQUENCY
DOUBLERS, CONSIDERING POSSIBILITY OF CURRENT
HARMONICS IN MULTIPLIER CORES AND WINDINGS
64-06 A04-05318
- UHF TELEMETRY TRANSMITTER AND POWER SUPPLY
64-06 A36-05929
- ELECTRONIC MEANS FOR MEASURING ERRORS IN GEAR TEETH
USING COMPUTER CIRCUITS, AND METHOD OF
MULTIPLYING FREQUENCY BY GEAR RATIO
64-06 A37-05706
- FREQUENCY RESPONSE
COMPARISON OF NORMALIZED RESPONSES OF LOW-PASS
FILTERS DESIGNED BY 5 METHODS, AND OSCILLOGRAMS
FROM PRACTICAL CIRCUITS
64-06 A25-05703
- FREQUENCY STABILITY
TUNED DETECTORS USING TWIN-T CIRCUIT BASED ON
TRANSISTOR AMPLIFIERS
64-06 A25-05921
- GAIN STABILITY
DESIGN OF TRANSISTORIZED LOW-DRIFT D-C AMPLIFIERS
64-06 A25-05919
- GASES, DIELECTRIC BREAKDOWN
BREAKDOWN VOLTAGES OF FREON GASES AND SULFUR
HEXAFLUORIDE AT LOW PRESSURES
64-06 A03-05321
- GEAR TEETH
ELECTRONIC MEANS FOR MEASURING ERRORS IN GEAR TEETH
USING COMPUTER CIRCUITS, AND METHOD OF
MULTIPLYING FREQUENCY BY GEAR RATIO
64-06 A37-05706
- GLASS
DIGITAL COMPUTER PROGRAM FOR DESIGN OF 4-LEVEL
LASERS EMPLOYING NEODYMIUM DOPED GLASS
64-06 A32-05908
- GRAPHITE
SIMULATION OF MICROWAVE WAVEGUIDES USING PYROLYTIC
GRAPHITE AND STUDY OF WAVE PROPAGATION IN KARP
LINE MODEL
64-06 A30-05907
- GUIDED MISSILES
ULTRASONIC TESTING OF GUIDED MISSILE BOOSTER
ROCKETS
64-06 A35-05526
- HALL EFFECT
MAGNETOHYDRODYNAMIC GENERATION OF ELECTRIC POWER IN
NUCLEAR OR CONVENTIONAL POWER PLANTS
64-06 A07-05524
- HARMONICS
EXCITATION OF OSCILLATIONS IN A-C INDUCTION MOTORS
AND COMPUTATION OF EXCITATION IN YOKES AND
AIR GAPS
64-06 A08-05508
- FILTERS FOR SUPPRESSING HARMONICS CAUSED BY
CONVERTERS IN INTERCONNECTED A-C AND D-C
ELECTRIC TRANSMISSION NETWORKS
64-06 A10-05303
- HEATING RODS
SILICON CARBIDE HEATING RODS FOR ELECTRIC FURNACES
64-06 A18-05515
- HERBICIDES
CHEMICAL VEGETATION CONTROL IN ELECTRIC
TRANSMISSION AND DISTRIBUTION SYSTEMS
RIGHT-OF-WAY
64-06 A10-05522
- HIGH ALTITUDE
TECHNIQUES OF EVALUATING AND PREDICTING ELECTRIC
CONNECTOR PERFORMANCE, BASED ON APPLICATION OF
PRINCIPLES OF STRESS ANALYSIS
64-06 A04-05329
- HYDROELECTRIC GENERATORS
USE OF ELECTRIC BRAKING AND RESYNCHRONIZATION TO
IMPROVE DYNAMIC STABILITY OF HYDROELECTRIC
GENERATORS
64-06 A08-05316
- HYDROELECTRIC POWER GENERATION
JAPANESE SEMI-UNDERGROUND HYDROELECTRIC POWER PLANT
USING FRANCIS TURBINES
64-06 A09-05519
- ILLUMINATION
SODIUM-VAPOR HIGHWAY LIGHTING IN JAPAN
64-06 A12-05518
- IMPEDANCE
CALCULATION OF DRIVING-POINT AND TRANSFER
IMPEDANCES FOR VARYING NETWORK CONFIGURATIONS OF
ELECTRIC TRANSMISSION SYSTEMS
64-06 A10-05317
- IN-CIRCUIT TESTING
TRANSISTOR LEAKAGE CURRENT METER WITH D-C AMPLIFIER
FOR IN-CIRCUIT MEASUREMENT
64-06 A26-05927
- INDIUM AMALGAMS
EMULSIFICATION OF INDIUM AMALGAM BY
ELECTRONEGATIVE GAS FOR USE AS LIQUID COMMUTATOR

- BRUSHES IN HOMOPOLAR ELECTRIC MACHINERY
64-06 A08-05322
- INDUCTANCE
INDUCTANCE COEFFICIENTS OF ROTATING ELECTRIC
MACHINERY EXPRESSED IN TERMS OF WINDING SPACE
HARMONICS AND AIR GAP PERMEABILITY
64-06 A08-05307
- INDUCTION MOTORS
EXCITATION OF OSCILLATIONS IN A-C INDUCTION MOTORS
AND COMPUTATION OF EXCITATION IN YOKES AND
AIR GAPS
64-06 A08-05508
- INDUCTIVE COORDINATION
MEASUREMENT OF CORONA AND RADIO INTERFERENCE ON
400 KV A-C BUNDLED CONDUCTOR ELECTRIC
TRANSMISSION LINE
64-06 A10-05301
- INDUSTRIAL TRAINING
EDUCATION, TRAINING, AND UPGRADING OF TECHNICAL
PERSONNEL IN FRENCH ELECTRONICS INDUSTRIES
64-06 A21-05709
- INSULATING MATERIALS, TESTING
ELECTRIC PROPERTIES OF HIGH-TEMPERATURE LOW-LOSS
CAPACITORS USING DU PONT HT-1 AROMATIC POLYAMIDE
SHEETS TO SEPARATE ALUMINUM ELECTRODES
64-06 A08-05314
- INSULATING OIL, BREAKDOWN
BREAKDOWN DISTRIBUTION OF LONG GAPS IN ELECTRIC
TRANSFORMER OIL
64-06 A03-05313
- INSULATORS
ANALYSIS OF ELECTRIC FIELD OF CAP INSULATORS
64-06 A03-05510
USE OF HORIZONTAL POST-TYPE INSULATORS TO REDUCE
INSULATOR CLEANING PROBLEM
64-06 A10-05523
- INTEGRATED CIRCUITS
ANALOG INTEGRATED FAIL-OPERATIVE VOTER CIRCUITS IN
AUTOMATIC FLIGHT CONTROL
64-06 A37-05912
- INTEGRATORS
HIGH RESISTANCE CURRENT SOURCE USING TUBES OR
TRANSISTORS FOR INTEGRATORS, SAWTOOTH
GENERATORS, MEASURING INSTRUMENTS, ETC
64-06 A27-05521
- ITERATION
DIGITAL COMPUTER PROGRAM FOR ANALYSIS OF AXIALLY
SYMMETRIC AND SHEET BEAM ELECTRODES WITH
EMITTING SURFACE
64-06 A24-05905
- LAMINATIONS
BEAM-GUIDE MAGNETS FOR ELECTRON SYNCHROTRON
64-06 A03-05514
- LASERS
DIGITAL COMPUTER PROGRAM FOR DESIGN OF 4-LEVEL
LASERS EMPLOYING NEODYMIUM DOPED GLASS
64-06 A32-05908
- LEAKAGE CURRENTS
TRANSISTOR LEAKAGE CURRENT METER WITH D-C AMPLIFIER
FOR IN-CIRCUIT MEASUREMENT
64-06 A26-05927
- LIGHTNING
OVERVOLTAGES CAUSED BY LIGHTNING STROKE IN CABLE-
OVERHEAD TRANSMISSION LINE SYSTEMS
64-06 A10-05304
- LOGIC CIRCUITS
LOW-COST ELECTRONIC DIGITAL COMPUTER
64-06 A37-05708
ELECTRONIC OFFICE-TYPE COMPUTER WITH REDUCED
KEYBOARD AND VISUAL MATRIX-TYPE READOUT
64-06 A37-05710
MAGNETIC ELEMENTS APPLIED TO COMPUTER LOGIC
CIRCUITS
64-06 A37-05925
- LOSSES
MEASUREMENT OF CORONA AND RADIO INTERFERENCE ON
400 KV A-C BUNDLED CONDUCTOR ELECTRIC
TRANSMISSION LINE
64-06 A10-05301
CALCULATION OF DRIVING-POINT AND TRANSFER
IMPEDANCES FOR VARYING NETWORK CONFIGURATIONS OF
ELECTRIC TRANSMISSION SYSTEMS
64-06 A10-05317
NEW METHOD OF LOSS CALCULATION IN HIGH VOLTAGE
ELECTRIC TRANSMISSION SYSTEMS
64-06 A10-05323
TRANSISTOR LEAKAGE CURRENT METER WITH D-C AMPLIFIER
FOR IN-CIRCUIT MEASUREMENT
64-06 A26-05927
- LOSSES, TRANSFORMERS
DESIGN OF LARGE ELECTRIC TRANSFORMERS FOR REDUCED
SIZE, LOWER LOSSES AND BETTER TRANSPORTABILITY
64-06 A04-05309
- LOW-PASS FILTERS
COMPARISON OF NORMALIZED RESPONSES OF LOW-PASS
FILTERS DESIGNED BY 5 METHODS, AND OSCILLOGRAMS
FROM PRACTICAL CIRCUITS
64-06 A25-05703
- MACHINE TOOLS
REVIEW OF STATIC, VARIABLE SPEED A-C ELECTRIC
DRIVES FOR MACHINE TOOLS AND TEXTILE MACHINERY
64-06 A08-05326
- MAGNETIC CORES
ELECTRONIC OFFICE-TYPE COMPUTER WITH REDUCED
KEYBOARD AND VISUAL MATRIX-TYPE READOUT
64-06 A37-05710
MAGNETIC ELEMENTS APPLIED TO COMPUTER LOGIC
CIRCUITS
64-06 A37-05925
- MAGNETIC FIELDS
USE OF CONFORMAL MAPPING IN ANALYSIS OF MAGNETIC
FIELDS
64-06 A02-05325
- MAGNETIC PERMEABILITY
INDUCTANCE COEFFICIENTS OF ROTATING ELECTRIC
MACHINERY EXPRESSED IN TERMS OF WINDING SPACE
HARMONICS AND AIR GAP PERMEABILITY
64-06 A08-05307
- MAGNETOHYDRODYNAMIC GENERATORS
MAGNETOHYDRODYNAMIC GENERATION OF ELECTRIC POWER IN
NUCLEAR OR CONVENTIONAL POWER PLANTS
64-06 A07-05524
- MAGNETOMETERS
DESIGN OF UNIVERSAL MAGNETOMETER WITH SPECIALLY
DEvised BALANCE AND ERROR COMPENSATING CIRCUIT
TO EXTEND RANGE OF ITS APPLICATION
64-06 A06-05319
- MAGNETS
BEAM-GUIDE MAGNETS FOR ELECTRON SYNCHROTRON
64-06 A03-05514
- MEASURING INSTRUMENTS
DESIGN OF UNIVERSAL MAGNETOMETER WITH SPECIALLY
DEvised BALANCE AND ERROR COMPENSATING CIRCUIT
TO EXTEND RANGE OF ITS APPLICATION
64-06 A06-05319
MEASUREMENT OF ELECTRIC RESISTANCE IN ROTORS OF
ALTERNATORS DURING OPERATION
64-06 A08-05324
MEASUREMENT OF CORONA AND RADIO INTERFERENCE ON
400 KV A-C BUNDLED CONDUCTOR ELECTRIC
TRANSMISSION LINE
64-06 A10-05301
HYBRID D-C AMPLIFIERS WITH HIGH INPUT IMPEDANCE
64-06 A25-05920
GRAPHICAL SOLUTION FOR DETERMINATION OF NOISE LEVEL
IN RADIO AMPLIFIERS
64-06 A26-03750
TRANSISTOR LEAKAGE CURRENT METER WITH D-C AMPLIFIER
FOR IN-CIRCUIT MEASUREMENT
64-06 A26-05927
HIGH RESISTANCE CURRENT SOURCE USING TUBES OR
TRANSISTORS FOR INTEGRATORS, SAWTOOTH
GENERATORS, MEASURING INSTRUMENTS, ETC
64-06 A27-05521
LOW-NOISE PREAMPLIFIER-AMPLIFIER CHAIN FOR USE WITH
PROPORTIONAL COUNTER IN RADIOACTIVE-DECAY
MEASUREMENT
64-06 A31-05714
PULSE REPETITION RATE COUNTER FOR CARDIOTACHOMETRY
64-06 A31-05916
ULTRASONIC TESTING OF GUIDED MISSILE BOOSTER
ROCKETS
64-06 A35-05526
- MEDICAL EQUIPMENT
PULSE REPETITION RATE COUNTER FOR CARDIOTACHOMETRY
64-06 A31-05916
- METALLIZING
COSTS OF METALLIZED PROTECTIVE COATINGS FOR
CORROSION RESISTANCE IN CONDUITS AND ON POLE
HARDWARE
64-06 A04-05501
- MICROPOWER AMPLIFIERS
DESIGN OF LINEAR BROADBAND MICROPOWER TRANSISTOR
AMPLIFIERS
64-06 A25-05911
COMPARISON OF CASCODE, COMMON EMITTER, WORST CASE,
AND FEEDBACK MICROPOWER TRANSISTOR AMPLIFIERS
64-06 A25-05926
- MICROWAVES
MICROWAVE SEMICONDUCTOR CONTROL DEVICES
64-06 A24-05529
AMPLITUDE MODULATION OF NARROWBAND RANDOM NOISE
CARRIER AT OPTICAL FREQUENCIES
64-06 A29-05903
SIMULATION OF MICROWAVE WAVEGUIDES USING PYROLYTIC
GRAPHITE AND STUDY OF WAVE PROPAGATION IN KARP
LINE MODEL
64-06 A30-05907
- MODULATION
AMPLITUDE MODULATION OF NARROWBAND RANDOM NOISE
CARRIER AT OPTICAL FREQUENCIES
64-06 A29-05903
ANGLE MODULATION OF NARROWBAND GAUSSIAN NOISE
CARRIER WITH SSB MULTIPLEX NARROWBAND CHANNELS
64-06 A29-05904
FREQUENCY SLOPE MODULATION SYSTEM USING FREQUENCY
MODULATED CHIRP RADAR SIGNAL FOR RADIO

- COMMUNICATION SYSTEMS 64-06 A29-05913
PULSE COMPRESSION PREDISTORTION FUNCTION FOR
SIDELOBE REDUCTION IN RADAR PULSES 64-06 A34-05902
EFFECTS OF METHODS OF MODULATION AND MULTIPLEXING
ON CHANNEL CAPACITY OF TELEPHONE LINES 64-06 A36-05701
PHASE MODULATION SYSTEM USING SYNCHRONOUS PHASE
SWITCHING FOR DATA TRANSMISSION OVER TELEPHONE
LINES 64-06 A36-05702
MULTIPLEXING
ANGLE MODULATION OF NARROWBAND GAUSSIAN NOISE
CARRIER WITH SSB MULTIPLEX NARROWBAND CHANNELS
64-06 A29-05904
TIME-DIVISION-MULTIPLEXING TELEMETERING SYSTEM FOR
INDUSTRIAL APPLICATIONS 64-06 A36-05328
EFFECTS OF METHODS OF MODULATION AND MULTIPLEXING
ON CHANNEL CAPACITY OF TELEPHONE LINES 64-06 A36-05701
PHASE MODULATION SYSTEM USING SYNCHRONOUS PHASE
SWITCHING FOR DATA TRANSMISSION OVER TELEPHONE
LINES 64-06 A36-05702
BANDWIDTH CONSIDERATIONS AND NONPERIODIC SAMPLING
OF TIME DIVISION MULTIPLEXED SIGNALS USED IN
TELEMETRY 64-06 A36-05917
MULTIPLIER PHOTOTUBES
BREAKDOWN DISTRIBUTION OF LONG GAPS IN ELECTRIC
TRANSFORMER OIL 64-06 A03-05313
MULTIPLIERS, FREQUENCY
DESIGN OF STATIC ELECTROMAGNETIC FREQUENCY
DOUBLERS, CONSIDERING POSSIBILITY OF CURRENT
HARMONICS IN MULTIPLIER CORES AND WINDINGS
64-06 A04-05318
UHF TELEMETRY TRANSMITTER AND POWER SUPPLY
64-06 A36-05929
ELECTRONIC MEANS FOR MEASURING ERRORS IN GEAR TEETH
USING COMPUTER CIRCUITS, AND METHOD OF
MULTIPLYING FREQUENCY BY GEAR RATIO 64-06 A37-05706
MULTIPLIERS, VOLTAGE
VOLTAGE MULTIPLICATION FOR HIGH VOLTAGE
ELECTROSTATIC PULSE GENERATORS BY VOLTAGE
REVERSAL 64-06 A08-05310
NEODYMIUM
DIGITAL COMPUTER PROGRAM FOR DESIGN OF 4-LEVEL
LASERS EMPLOYING NEODYMIUM DOPED GLASS 64-06 A32-05908
NICKEL ALLOYS
PROPERTIES AND APPLICATION OF NICKEL AND NICKEL
ALLOYS IN ELECTRICAL AND ELECTRONIC INDUSTRY 64-06 A03-05511
NOISE, AMPLIFIERS
GRAPHICAL SOLUTION FOR DETERMINATION OF NOISE LEVEL
IN RADIO AMPLIFIERS 64-06 A26-03750
NOISE, INDUCTION MOTORS
EXCITATION OF OSCILLATIONS IN A-C INDUCTION MOTORS
AND COMPUTATION OF EXCITATION IN YOKES AND
AIR GAPS 64-06 A08-05508
NOMOGRAPHS
TUNED DETECTORS USING TWIN-T CIRCUIT BASED ON
TRANSISTOR AMPLIFIERS 64-06 A25-05921
NUCLEAR EXPLOSIONS
PROTECTION OF COMMUNICATIONS EQUIPMENT FROM
ELECTROMAGNETIC PULSES PRODUCED BY NUCLEAR
EXPLOSIONS 64-06 A29-05915
NUCLEAR POWER GENERATION
MAGNETOHYDRODYNAMIC GENERATION OF ELECTRIC POWER IN
NUCLEAR OR CONVENTIONAL POWER PLANTS 64-06 A07-05524
CONTROL OF PRESSURIZED-WATER-REACTOR NUCLEAR POWER
PLANT 64-06 A09-05525
NUCLEAR POWER PLANTS
THERMIONIC CONVERTERS FOR USE IN NUCLEAR POWER
PLANTS 64-06 A07-05914
OFFICE EQUIPMENT
LOW-COST ELECTRONIC DIGITAL COMPUTER 64-06 A37-05708
ELECTRONIC OFFICE-TYPE COMPUTER WITH REDUCED
KEYBOARD AND VISUAL MATRIX-TYPE READOUT 64-06 A37-05710
OPTICAL COMMUNICATION SYSTEMS
AMPLITUDE MODULATION OF NARROWBAND RANDOM NOISE
CARRIER AT OPTICAL FREQUENCIES 64-06 A29-05903
ANGLE MODULATION OF NARROWBAND GAUSSIAN NOISE
CARRIER WITH SSB MULTIPLEX NARROWBAND CHANNELS 64-06 A29-05904
OSCILLATORS
STUDY OF CHARACTERISTICS OF FORCED OSCILLATIONS IN
FLUCTUATING LINEAR CIRCUITS USING STATISTICAL
METHODS 64-06 A25-05531
OXYGEN INJECTION
NEW METHOD FOR DETERMINING DETERIORATION OF
ELECTRICAL INSULATION BY OXYGEN INJECTION 64-06 A03-05507
PAPER, IMPREGNATED
IMPULSE BREAKDOWN OF OIL-IMPREGNATED PAPER AND
POLYETHYLENE USED AS DIELECTRIC IN OIL-FILLED
ELECTRIC CABLES 64-06 A03-05312
PARAMETRIC AMPLIFIERS
DEGENERATE CROSSED-FIELD CYCLOTRON WAVE PARAMETRIC
AMPLIFIER WITH 3 COAXIAL CAVITIES 64-06 A25-05906
PAY TELEVISION
STANDARDIZATION CONSIDERATIONS FOR BRITISH PAY TV 64-06 A33-05704
CONTROL SIGNALS AND SUBSCRIBER EQUIPMENT FOR
BRITISH PAY TV 64-06 A33-05705
PERSONNEL
EDUCATION, TRAINING, AND UPGRADING OF TECHNICAL
PERSONNEL IN FRENCH ELECTRONICS INDUSTRIES 64-06 A21-05709
PHASE MEASUREMENT
ELECTRONIC MEANS FOR MEASURING ERRORS IN GEAR TEETH
USING COMPUTER CIRCUITS, AND METHOD OF
MULTIPLYING FREQUENCY BY GEAR RATIO 64-06 A37-05706
PHASE MODULATION
ANGLE MODULATION OF NARROWBAND GAUSSIAN NOISE
CARRIER WITH SSB MULTIPLEX NARROWBAND CHANNELS
64-06 A29-05904
PHASE MODULATION SYSTEM USING SYNCHRONOUS PHASE
SWITCHING FOR DATA TRANSMISSION OVER TELEPHONE
LINES 64-06 A36-05702
PHOTOELECTRIC CELLS
APPLICATION AND MANUFACTURE OF PHOTOVOLTAIC CELLS
FOR SOLAR ENERGY UTILIZATION 64-06 A07-05503
PICTURE TUBES
EFFECT OF PICTURE-TUBE TYPE AND FRENCH RASTER
STANDARDS ON DESIGN AND SERVICING OF COLOR TV
RECEIVERS 64-06 A33-05711
PIEZOELECTRIC CRYSTALS
ULTRASONIC WAVE AMPLIFICATION IN CADMIUM SULFIDE
PIEZOELECTRIC CRYSTALS 64-06 A35-05901
PIN-TYPE INSULATORS
ANALYSIS OF ELECTRIC FIELD OF CAP INSULATORS 64-06 A03-05510
PLANTS, POWER GENERATION
MAGNETOHYDRODYNAMIC GENERATION OF ELECTRIC POWER IN
NUCLEAR OR CONVENTIONAL POWER PLANTS 64-06 A07-05524
THERMIONIC CONVERTERS FOR USE IN NUCLEAR POWER
PLANTS 64-06 A07-05914
JAPANESE SEMI-UNDERGROUND HYDROELECTRIC POWER PLANT
USING FRANCIS TURBINES 64-06 A09-05519
CONTROL OF PRESSURIZED-WATER-REACTOR NUCLEAR POWER
PLANT 64-06 A09-05525
POISSON DISTRIBUTIONS
DIGITAL COMPUTER PROGRAM FOR ANALYSIS OF AXIALLY
SYMMETRIC AND SHEET BEAM ELECTRODES WITH
EMITTING SURFACE 64-06 A24-05905
POLYAMIDES, ELECTRICAL PROPERTIES
ELECTRIC PROPERTIES OF HIGH-TEMPERATURE LOW-LOSS
CAPACITORS USING DU PONT HT-1 AROMATIC POLYAMIDE
SHEETS TO SEPARATE ALUMINUM ELECTRODES 64-06 A08-05314
POLYETHYLENE, DIELECTRIC STRENGTH
IMPULSE BREAKDOWN OF OIL-IMPREGNATED PAPER AND
POLYETHYLENE USED AS DIELECTRIC IN OIL-FILLED
ELECTRIC CABLES 64-06 A03-05312
POWER SUPPLY CIRCUITS
HIGH RESISTANCE CURRENT SOURCE USING TUBES OR
TRANSISTORS FOR INTEGRATORS, SAWTOOTH
GENERATORS, MEASURING INSTRUMENTS, ETC 64-06 A27-05521
ANALYSIS OF TRANSISTOR SERIES REGULATORS FOR POWER
SUPPLIES, IN TERMS OF HYBRID PARAMETERS 64-06 A27-05707
UHF TELEMETRY TRANSMITTER AND POWER SUPPLY 64-06 A36-05929
PREAMPLIFIERS

- LOW-NOISE PREAMPLIFIER-AMPLIFIER CHAIN FOR USE WITH PROPORTIONAL COUNTER IN RADIOACTIVE-DECAY MEASUREMENT 64-06 A31-05714
- PRESSURIZED WATER REACTORS
CONTROL OF PRESSURIZED-WATER-REACTOR NUCLEAR POWER PLANT 64-06 A09-05525
- PROGRAMMING TECHNIQUES
DIGITAL COMPUTER PROGRAM FOR ANALYSIS OF AXIALLY SYMMETRIC AND SHEET BEAM ELECTRODES WITH EMITTING SURFACE 64-06 A24-05905
DIGITAL COMPUTER PROGRAM FOR DESIGN OF 4-LEVFL LASERS EMPLOYING NEODYMIUM DOPED GLASS 64-06 A32-05908
- PROPORTIONAL COUNTERS
LOW-NOISE PREAMPLIFIER-AMPLIFIER CHAIN FOR USE WITH PROPORTIONAL COUNTER IN RADIOACTIVE-DECAY MEASUREMENT 64-06 A31-05714
- PROTECTION, SHORT CIRCUITS
INTERTURN SHORT CIRCUIT PROTECTION OF SYNCHRONOUS MACHINES USING SPLIT-CONDUCTOR METHOD 64-06 A08-05516
- PROTECTIVE COATINGS
COSTS OF METALLIZED PROTECTIVE COATINGS FOR CORROSION RESISTANCE IN CONDUITS AND ON POLE HARDWARE 64-06 A04-05501
- PULSE AMPLIFIERS
PULSE AMPLIFIER WITH FEEDBACK USING DIFFERENCE AMPLIFIER AND COMMON EMITTER STAGE FOR LOW TEMPERATURE COEFFICIENT 64-06 A25-05923
- PULSE CODE MODULATION
EFFECTS OF METHODS OF MODULATION AND MULTIPLEXING ON CHANNEL CAPACITY OF TELEPHONE LINES 64-06 A36-05701
- PULSE COUNTERS
PULSE REPETITION RATE COUNTER FOR CARDIOTACHOMETRY 64-06 A31-05916
- PULSE GENERATORS
VOLTAGE MULTIPLICATION FOR HIGH VOLTAGE
ELECTROSTATIC PULSE GENERATORS BY VOLTAGE REVERSAL 64-06 A08-05310
- QUALITY CONTROL
SEMICONDUCTOR POWER RECTIFIER DIODE CHARACTERISTICS, AND PRODUCTION QUALITY CONTROL USING COMPUTERS 64-06 A04-05502
- RADAR
FREQUENCY SLOPE MODULATION SYSTEM USING FREQUENCY MODULATED CHIRP RADAR SIGNAL FOR RADIO COMMUNICATION SYSTEMS 64-06 A29-05913
PULSE COMPRESSION PREDISTORTION FUNCTION FOR SIDELobe REDUCTION IN RADAR PULSES 64-06 A34-05902
- RADIATION, MEASUREMENT
MEASUREMENT OF HF RADIATION PATTERNS USING BALLOON SUSPENDED TRANSMITTER AND DIPOLE 64-06 A30-05922
- RADIOACTIVE DECAY
LOW-NOISE PREAMPLIFIER-AMPLIFIER CHAIN FOR USE WITH PROPORTIONAL COUNTER IN RADIOACTIVE-DECAY MEASUREMENT 64-06 A31-05714
- RADIO ANTENNAS
MEASUREMENT OF HF RADIATION PATTERNS USING BALLOON SUSPENDED TRANSMITTER AND DIPOLE 64-06 A30-05922
- RADIO CIRCUITS
STUDY OF CHARACTERISTICS OF FORCED OSCILLATIONS IN FLUCTUATING LINEAR CIRCUITS USING STATISTICAL METHODS 64-06 A25-05531
- RADIO COMMUNICATION SYSTEMS
FREQUENCY SLOPE MODULATION SYSTEM USING FREQUENCY MODULATED CHIRP RADAR SIGNAL FOR RADIO COMMUNICATION SYSTEMS 64-06 A29-05913
- RADIO COMMUNICATION SYSTEMS, PROTECTION
PROTECTION OF COMMUNICATIONS EQUIPMENT FROM ELECTROMAGNETIC PULSES PRODUCED BY NUCLEAR EXPLOSIONS 64-06 A29-05915
- RADIO INTERFERENCE
FILTERS FOR SUPPRESSING HARMONICS CAUSED BY CONVERTERS IN INTERCONNECTED A-C AND D-C ELECTRIC TRANSMISSION NETWORKS 64-06 A10-05303
FREQUENCY SLOPE MODULATION SYSTEM USING FREQUENCY MODULATED CHIRP RADAR SIGNAL FOR RADIO COMMUNICATION SYSTEMS 64-06 A29-05913
PULSE COMPRESSION PREDISTORTION FUNCTION FOR SIDELobe REDUCTION IN RADAR PULSES 64-06 A34-05902
- RADIO INTERFERENCE, TRANSMISSION LINES
MEASUREMENT OF CORONA AND RADIO INTERFERENCE ON 400 KV A-C BUNDLED CONDUCTOR ELECTRIC TRANSMISSION LINE 64-06 A10-05301
- RADIO WAVES, PATTERNS
MEASUREMENT OF HF RADIATION PATTERNS USING BALLOON SUSPENDED TRANSMITTER AND DIPOLE 64-06 A30-05922
- RAILROAD TRAINS
AUTOMATIC OPERATION OF ELECTRIC TRAINS IN GREAT BRITAIN BY MEANS OF ELECTRONIC CONTROLS BASED ON CODED PULSES 64-06 A13-05506
- RANDOM NOISE
AMPLITUDE MODULATION OF NARROWBAND RANDOM NOISE CARRIER AT OPTICAL FREQUENCIES 64-06 A29-05903
- RECTIFIERS
SEMICONDUCTOR POWER RECTIFIER DIODE CHARACTERISTICS, AND PRODUCTION QUALITY CONTROL USING COMPUTERS 64-06 A04-05502
FILTERS FOR SUPPRESSING HARMONICS CAUSED BY CONVERTERS IN INTERCONNECTED A-C AND D-C ELECTRIC TRANSMISSION NETWORKS 64-06 A10-05303
USE OF SEMICONDUCTOR RECTIFIERS FOR OPERATION AND DYNAMIC BRAKING OF ELECTRIC TRAINS IN GERMANY 64-06 A13-05509
- REDUNDANCY
ANALOG INTEGRATED FAIL-OPERATIVE VOTER CIRCUITS IN AUTOMATIC FLIGHT CONTROL 64-06 A37-05912
- REGULATORS
RECTIFIER AND ERROR-DETECTOR USING SEMICONDUCTOR DIODES FOR AUTOMATIC VOLTAGE REGULATORS OF ALTERNATORS 64-06 A06-05918
STABILITY AND DYNAMIC-RESPONSE ANALYSIS OF SYNCHRONOUS ELECTRIC MACHINERY BY ROOT LOCUS METHOD 64-06 A08-05306
HIGH RESISTANCE CURRENT SOURCE USING TUBES OR TRANSISTORS FOR INTEGRATORS, SAWTOOTH GENERATORS, MEASURING INSTRUMENTS, ETC 64-06 A27-05521
ANALYSIS OF TRANSISTOR SERIES REGULATORS FOR POWER SUPPLIES, IN TERMS OF HYBRID PARAMETERS 64-06 A27-05707
TRANSISTOR VOLTAGE REGULATOR FOR PRESSURE TRANSDUCERS 64-06 A27-05924
- RELAXATION METHOD
DIGITAL COMPUTER PROGRAM FOR ANALYSIS OF AXIALLY SYMMETRIC AND SHEET BEAM ELECTRODES WITH EMITTING SURFACE 64-06 A24-05905
- RELAYS, SPRINGS
PROPERTIES AND APPLICATION OF NICKEL AND NICKEL ALLOYS IN ELECTRICAL AND ELECTRONIC INDUSTRY 64-06 A03-05511
- RELIABILITY
FREQUENCY SLOPE MODULATION SYSTEM USING FREQUENCY MODULATED CHIRP RADAR SIGNAL FOR RADIO COMMUNICATION SYSTEMS 64-06 A29-05913
- RIGHT-OF-WAY, MAINTENANCE
CHEMICAL VEGETATION CONTROL IN ELECTRIC TRANSMISSION AND DISTRIBUTION SYSTEMS
RIGHT-OF-WAY 64-06 A10-05522
- ROCKET ENGINES
ULTRASONIC TESTING OF GUIDED MISSILE BOOSTER ROCKETS 64-06 A35-05526
- ROOT LOCUS METHOD
STABILITY AND DYNAMIC-RESPONSE ANALYSIS OF SYNCHRONOUS ELECTRIC MACHINERY BY ROOT LOCUS METHOD 64-06 A08-05306
- ROTATING MACHINERY, HIGH SPEED
TOUCHLESS TACHOMETRY FOR HIGH-SPEED /480,000 RPM/ LOW-POWER ROTATING MACHINES BY ELECTRICAL MEANS 64-06 A11-05505
- ROTORS, ELECTRIC RESISTANCE
MEASUREMENT OF ELECTRIC RESISTANCE IN ROTORS OF ALTERNATORS DURING OPERATION 64-06 A08-05324
- SAMPLING, SIGNALS
SAMPLING EFFECTS ON WEAK-SIGNAL DETECTION 64-06 A25-05713
BANDWIDTH CONSIDERATIONS AND NONPERIODIC SAMPLING OF TIME DIVISION MULTIPLEXED SIGNALS USED IN TELEMETRY 64-06 A36-05917
- SEALS, ELECTRON TUBES
PROPERTIES AND APPLICATION OF NICKEL AND NICKEL ALLOYS IN ELECTRICAL AND ELECTRONIC INDUSTRY 64-06 A03-05511

- SEMICONDUCTOR DEVICES
 DESIGN AND FABRICATION OF OVONIC THRESHOLD
 SWITCHES FROM SEMICONDUCTORS WITHOUT JUNCTION
 64-06 A04-05327
- SEMICONDUCTOR POWER RECTIFIER DIODE
 CHARACTERISTICS, AND PRODUCTION QUALITY CONTROL
 USING COMPUTERS 64-06 A04-05502
- RECTIFIER AND ERROR-DETECTOR USING SEMICONDUCTOR
 DIODES FOR AUTOMATIC VOLTAGE REGULATORS OF
 ALTERNATORS 64-06 A06-05918
- USE OF SEMICONDUCTOR RECTIFIERS FOR OPERATION AND
 DYNAMIC BRAKING OF ELECTRIC TRAINS IN GERMANY
 64-06 A13-05509
- MICROWAVE SEMICONDUCTOR CONTROL DEVICES
 64-06 A24-05529
- FABRICATION OF SEMICONDUCTOR CATHODES FOR FIELD
 EMISSION ELECTRON MICROSCOPES, BY CUTTING AND
 ETCHING 64-06 A31-05333
- UHF TELEMETRY TRANSMITTER AND POWER SUPPLY
 64-06 A36-05929
- SENSORS
 TOUCHLESS TACHOMETRY FOR HIGH-SPEED /480,000 RPM/
 LOW-POWER ROTATING MACHINES BY ELECTRICAL MEANS
 64-06 A11-05505
- AUTOMATIC OPERATION OF ELECTRIC TRAINS IN GREAT
 BRITAIN BY MEANS OF ELECTRONIC CONTROLS BASED
 ON CODED PULSES 64-06 A13-05506
- TRANSISTOR VOLTAGE REGULATOR FOR PRESSURE
 TRANSDUCERS 64-06 A27-05924
- SERVOMOTORS
 MEASUREMENT OF EQUIVALENT CIRCUIT CONSTANTS FOR
 CALCULATING STALL TORQUE OF 2-PHASE SERVO MOTOR
 64-06 A08-05311
- SHIELDS
 PROTECTION OF COMMUNICATIONS EQUIPMENT FROM
 ELECTROMAGNETIC PULSES PRODUCED BY NUCLEAR
 EXPLOSIONS 64-06 A29-05915
- SHORT CIRCUITS
 INTERTURN SHORT CIRCUIT PROTECTION OF SYNCHRONOUS
 MACHINES USING SPLIT-CONDUCTOR METHOD
 64-06 A08-05516
- SIGNAL GENERATORS
 HIGH RESISTANCE CURRENT SOURCE USING TUBES OR
 TRANSISTORS FOR INTEGRATORS, SAWTOOTH
 GENERATORS, MEASURING INSTRUMENTS, ETC
 64-06 A27-05521
- SIGNALS
 SAMPLING EFFECTS ON WEAK-SIGNAL DETECTION
 64-06 A25-05713
- FREQUENCY SLOPE MODULATION SYSTEM USING FREQUENCY
 MODULATED CHIRP RADAR SIGNAL FOR RADIO
 COMMUNICATION SYSTEMS 64-06 A29-05913
- BANDWIDTH CONSIDERATIONS AND NONPERIODIC SAMPLING
 OF TIME DIVISION MULTIPLEXED SIGNALS USED IN
 TELEMETRY 64-06 A36-05917
- SILICON CARBIDE
 SILICON CARBIDE HEATING RODS FOR ELECTRIC FURNACES
 64-06 A18-05515
- SIMULATION
 SIMULATION OF MICROWAVE WAVEGUIDES USING PYROLYTIC
 GRAPHITE AND STUDY OF WAVE PROPAGATION IN KARP
 LINE MODEL 64-06 A30-05907
- SINGLE SIDEBAND TRANSMISSION
 LINEAR CLASS B TRANSISTOR SINGLE SIDEBAND AMPLIFIER
 FOR 30 MC 64-06 A25-05928
- ANGLE MODULATION OF NARROWBAND GAUSSIAN NOISE
 CARRIER WITH SSB MULTIPLEX NARROWBAND CHANNELS
 64-06 A29-05904
- EFFECTS OF METHODS OF MODULATION AND MULTIPLEXING
 ON CHANNEL CAPACITY OF TELEPHONE LINES
 64-06 A36-05701
- SODIUM LAMPS
 SODIUM-VAPOR HIGHWAY LIGHTING IN JAPAN
 64-06 A12-05518
- SOLAR ENERGY
 APPLICATION AND MANUFACTURE OF PHOTOVOLTAIC CELLS
 FOR SOLAR ENERGY UTILIZATION 64-06 A07-05503
- SOUND WAVES
 ULTRASONIC WAVE AMPLIFICATION IN CADMIUM SULFIDE
 PIEZOELECTRIC CRYSTALS 64-06 A35-05901
- SPINNING MACHINES
 REVIEW OF STATIC, VARIABLE SPEED A-C ELECTRIC
 DRIVES FOR MACHINE TOOLS AND TEXTILE MACHINERY
 64-06 A08-05326
- STREET LIGHTING
 SODIUM-VAPOR HIGHWAY LIGHTING IN JAPAN
 64-06 A12-05518
- STRESS ANALYSIS
- TECHNIQUES OF EVALUATING AND PREDICTING ELECTRIC
 CONNECTOR PERFORMANCE, BASED ON APPLICATION OF
 PRINCIPLES OF STRESS ANALYSIS 64-06 A04-05329
- STRESSES, BUS CONDUCTORS
 ANALYSIS OF VIBRATION AND ELECTROMAGNETIC STRESSES
 IN ELECTRIC BUS BARS 64-06 A04-05512
- STRUCTURAL STEEL
 COSTS OF METALLIZED PROTECTIVE COATINGS FOR
 CORROSION RESISTANCE IN CONDUITS AND ON POLE
 HARDWARE 64-06 A04-05501
- STRUCTURES, STEEL
 GUYED PORTAL TYPE STEEL TOWERS FOR 220 KV ELECTRIC
 LINES FOR CONVERSION TO 400 KV 64-06 A10-05305
- SUBSTATIONS
 AERIAL SUBSTATIONS FOR ELECTRIC DISTRIBUTION SYSTEM
 64-06 A10-05520
- SULFUR HEXAFLUORIDE, DIELECTRIC BREAKDOWN
 BREAKDOWN VOLTAGES OF FREON GASES AND SULFUR
 HEXAFLUORIDE AT LOW PRESSURES 64-06 A03-05321
- SUPERCONDUCTIVITY
 ANALYSIS OF DISTRIBUTED SUPERCONDUCTIVE CONVERTERS
 FOR DIRECT GENERATION OF LOW FREQUENCY
 ALTERNATING CURRENT 64-06 A07-05330
- SURFACE WAVES
 TRANSMISSION MODES OF SURFACE WAVES ON ANISOTROPIC
 DIELECTRICS WITH EXPERIMENTAL DETERMINATION OF
 APPARENT REFRACTIVITY OF SUCH WAVEGUIDE
 STRUCTURES 64-06 A30-05712
- SURGES
 OVERVOLTAGES CAUSED BY LIGHTNING STROKE IN CABLE-
 OVERHEAD TRANSMISSION LINE SYSTEMS 64-06 A10-05304
- SWITCHING SYSTEMS
 MAGNETIC ELEMENTS APPLIED TO COMPUTER LOGIC
 CIRCUITS 64-06 A37-05925
- SYNCHRONIZATION
 USE OF ELECTRIC BRAKING AND RESYNCHRONIZATION TO
 IMPROVE DYNAMIC STABILITY OF HYDROELECTRIC
 GENERATORS 64-06 A08-05316
- SYNCHRONOUS MACHINES
 STABILITY AND DYNAMIC-RESPONSE ANALYSIS
 OF SYNCHRONOUS ELECTRIC MACHINERY BY ROOT LOCUS
 METHOD 64-06 A08-05306
- ANALOG COMPUTER CALCULATION OF TERMINAL VOLTAGE
 RISE CAUSED BY SELF-EXCITATION OF SYNCHRONOUS
 GENERATORS WHEN CONNECTED TO CAPACITIVE LOAD
 64-06 A08-05308
- ANALYSIS OF UNBALANCED OPERATION OF A-C SYNCHRONOUS
 ELECTRIC MACHINERY, AND CALCULATION OF
 TRANSIENTS 64-06 A08-05315
- SYNCHRONOUS MACHINES, PROTECTION
 INTERTURN SHORT CIRCUIT PROTECTION OF SYNCHRONOUS
 MACHINES USING SPLIT-CONDUCTOR METHOD
 64-06 A08-05516
- SYNCHROTRONS
 BEAM-GUIDE MAGNETS FOR ELECTRON SYNCHROTRON
 64-06 A03-05514
- TACHOMETRY
 TOUCHLESS TACHOMETRY FOR HIGH-SPEED /480,000 RPM/
 LOW-POWER ROTATING MACHINES BY ELECTRICAL MEANS
 64-06 A11-05505
- PULSE REPETITION RATE COUNTER FOR CARDIOTACHOMETRY
 64-06 A31-05916
- TELEMETRY
 TIME-DIVISION-MULTIPLEXING TELEMETERING SYSTEM FOR
 INDUSTRIAL APPLICATIONS 64-06 A36-05328
- BANDWIDTH CONSIDERATIONS AND NONPERIODIC SAMPLING
 OF TIME DIVISION MULTIPLEXED SIGNALS USED IN
 TELEMETRY 64-06 A36-05917
- UHF TELEMETRY TRANSMITTER AND POWER SUPPLY
 64-06 A36-05929
- TELEPHONE LINES
 EFFECTS OF METHODS OF MODULATION AND MULTIPLEXING
 ON CHANNEL CAPACITY OF TELEPHONE LINES
 64-06 A36-05701
- PHASE MODULATION SYSTEM USING SYNCHRONOUS PHASE
 SWITCHING FOR DATA TRANSMISSION OVER TELEPHONE
 LINES 64-06 A36-05702
- TELEVISION
 STANDARDIZATION CONSIDERATIONS FOR BRITISH PAY TV
 64-06 A33-05704
- CONTROL SIGNALS AND SUBSCRIBER EQUIPMENT FOR
 BRITISH PAY TV 64-06 A33-05705
- TELEVISION RECEIVERS

- EFFECT OF PICTURE-TUBE TYPE AND FRENCH RASTER STANDARDS ON DESIGN AND SERVICING OF COLOR TV RECEIVERS 64-06 A33-05711
- TEMPERATURE EFFECT, ELECTRICAL INSULATION
NEW METHOD FOR DETERMINING DEGRADATION OF ELECTRICAL INSULATION BY OXYGEN INJECTION 64-06 A03-05507
- THERMAL STABILITY
PULSE AMPLIFIER WITH FEEDBACK USING DIFFERENCE AMPLIFIER AND COMMON EMITTER STAGE FOR LOW TEMPERATURE COEFFICIENT 64-06 A25-05923
- THERMIONIC CONVERTERS
THERMIONIC CONVERTERS FOR USE IN NUCLEAR POWER PLANTS 64-06 A07-05914
- THRESHOLD SWITCHES
DESIGN AND FABRICATION OF OVONIC THRESHOLD SWITCHES FROM SEMICONDUCTORS WITHOUT JUNCTION 64-06 A04-05327
- THYRISTORS
USE OF SEMICONDUCTOR RECTIFIERS FOR OPERATION AND DYNAMIC BRAKING OF ELECTRIC TRAINS IN GERMANY 64-06 A13-05509
- TOLERANCE, BEAM-GUIDE MAGNETS
BEAM-GUIDE MAGNETS FOR ELECTRON SYNCHROTRON 64-06 A03-05514
- TOLL TICKETING
STANDARDIZATION CONSIDERATIONS FOR BRITISH PAY TV 64-06 A33-05704
- CONTROL SIGNALS AND SUBSCRIBER EQUIPMENT FOR BRITISH PAY TV 64-06 A33-05705
- TORQUE
MEASUREMENT OF EQUIVALENT CIRCUIT CONSTANTS FOR CALCULATING STALL TORQUE OF 2-PHASE SERVOMOTOR 64-06 A08-05311
- TOWERS
GUYED PORTAL TYPE STEEL TOWERS FOR 220 KV ELECTRIC LINES FOR CONVERSION TO 400 KV 64-06 A10-05305
- TRANSDUCERS
TRANSISTOR VOLTAGE REGULATOR FOR PRESSURE TRANSDUCERS 64-06 A27-05924
- EFFECT OF PICTURE-TUBE TYPE AND FRENCH RASTER STANDARDS ON DESIGN AND SERVICING OF COLOR TV RECEIVERS 64-06 A33-05711
- FISH DETECTION AND RECORDING FOR TRAWLERS USING ULTRASONIC METHODS 64-06 A35-05527
- TRANSDUCERS, MAGNETOSTRICTIVE
PROPERTIES AND APPLICATION OF NICKEL AND NICKEL ALLOYS IN ELECTRICAL AND ELECTRONIC INDUSTRY 64-06 A03-05511
- TRANSFORMER OIL, BREAKDOWN
BREAKDOWN DISTRIBUTION OF LONG GAPS IN ELECTRIC TRANSFORMER OIL 64-06 A03-05313
- TRANSFORMERS
AERIAL SUBSTATIONS FOR ELECTRIC DISTRIBUTION SYSTEM 64-06 A10-05520
- TRANSFORMERS, DESIGN
DESIGN OF LARGE ELECTRIC TRANSFORMERS FOR REDUCED SIZE, LOWER LOSSES AND BETTER TRANSPORTABILITY 64-06 A04-05309
- TRANSFORMERS, INSULATION
BREAKDOWN DISTRIBUTION OF LONG GAPS IN ELECTRIC TRANSFORMER OIL 64-06 A03-05313
- TRANSFORMERS, TESTING
EFFECT OF NONLINEARITY OF MAGNETIZATION CURVES ON LEAKAGE FLUX DEMAGNETIZATION OF ELECTRIC TRANSFORMERS 64-06 A04-05320
- TRANSIENTS, ELECTRIC GENERATORS
ANALOG COMPUTER CALCULATION OF TERMINAL VOLTAGE RISE CAUSED BY SELF-EXCITATION OF SYNCHRONOUS GENERATORS WHEN CONNECTED TO CAPACITIVE LOAD 64-06 A08-05308
- TRANSIENTS, ELECTRIC MACHINERY
ANALYSIS OF UNBALANCED OPERATION OF A-C SYNCHRONOUS ELECTRIC MACHINERY, AND CALCULATION OF TRANSIENTS 64-06 A08-05315
- TRANSISTOR AMPLIFIERS
DESIGN OF LINEAR BROADBAND MICROPOWER TRANSISTOR AMPLIFIERS 64-06 A25-05911
- DESIGN OF TRANSISTORIZED LOW-DRIFT D-C AMPLIFIERS 64-06 A25-05919
- HYBRID D-C AMPLIFIERS WITH HIGH INPUT IMPEDANCE 64-06 A05-05920
- TUNED DETECTORS USING TWIN-T CIRCUIT BASED ON TRANSISTOR AMPLIFIERS 64-06 A25-05921
- PULSE AMPLIFIER WITH FEEDBACK USING DIFFERENCE AMPLIFIER AND COMMON EMITTER STAGE FOR LOW TEMPERATURE COEFFICIENT 64-06 A25-05923
- COMPARISON OF CASCODE, COMMON EMITTER, WORST CASE, AND FEEDBACK MICROPOWER TRANSISTOR AMPLIFIERS 64-06 A25-05926
- LINEAR CLASS B TRANSISTOR SINGLE SIDEBAND AMPLIFIER FOR 30 MC 64-06 A25-05928
- TRANSISTOR LEAKAGE CURRENT METER WITH D-C AMPLIFIER FOR IN-CIRCUIT MEASUREMENT 64-06 A26-05927
- TRANSISTORS
DESIGN AND FABRICATION OF HIGH CURRENT SILICON MESA SWITCHING TRANSISTORS WITH COMB-SHAPED EMITTER AND BASE ELECTRODES 64-06 A24-05332
- SILICON PLANAR EPITAXIAL TRANSISTORS AS FAST LOW-LEVEL ELECTRONIC SWITCHES 64-06 A24-05909
- FORMULAS FOR CURRENT DENSITIES, VOLTAGES, WIDTH AND RESISTANCE OF PLANAR TRANSISTORS 64-06 A24-05910
- HIGH RESISTANCE CURRENT SOURCE USING TUBES OR TRANSISTORS FOR INTEGRATORS, SAWTOOTH GENERATORS, MEASURING INSTRUMENTS, ETC 64-06 A27-05521
- ANALYSIS OF TRANSISTOR SERIES REGULATORS FOR POWER SUPPLIES, IN TERMS OF HYBRID PARAMETERS 64-06 A27-05707
- TRANSISTOR VOLTAGE REGULATOR FOR PRESSURE TRANSDUCERS 64-06 A27-05924
- ELECTRONIC OFFICE-TYPE COMPUTER WITH REDUCED KEYBOARD AND VISUAL MATRIX-TYPE READOUT 64-06 A37-05710
- TRANSMISSION LINES
MEASUREMENT OF CORONA AND RADIO INTERFERENCE ON 400 KV A-C BUNDLED CONDUCTOR ELECTRIC TRANSMISSION LINE 64-06 A10-05301
- FILTERS FOR SUPPRESSING HARMONICS CAUSED BY CONVERTERS IN INTERCONNECTED A-C AND D-C ELECTRIC TRANSMISSION NETWORKS 64-06 A10-05303
- OVERVOLTAGES CAUSED BY LIGHTNING STROKE IN CABLE-OVERHEAD TRANSMISSION LINE SYSTEMS 64-06 A10-05304
- PROTECTIVE RELAYS FOR 500 KV TRANSMISSION LINES 64-06 A10-05504
- TRANSMISSION LINES, CONTROL
AUTOMATIC DISPATCHING AND DATA PROCESSING SYSTEM FOR CONTROLLING ELECTRIC TRANSMISSION AND GENERATION 64-06 A10-05302
- TRANSMISSION LINES, LOSSES
MEASUREMENT OF CORONA AND RADIO INTERFERENCE ON 400 KV A-C BUNDLED CONDUCTOR ELECTRIC TRANSMISSION LINE 64-06 A10-05301
- CALCULATION OF DRIVING-POINT AND TRANSFER IMPEDANCES FOR VARYING NETWORK CONFIGURATIONS OF ELECTRIC TRANSMISSION SYSTEMS 64-06 A10-05317
- NEW METHOD OF LOSS CALCULATION IN HIGH VOLTAGE ELECTRIC TRANSMISSION SYSTEMS 64-06 A10-05323
- TRANSMISSION LINES, RIGHT-OF-WAY
CHEMICAL VEGETATION CONTROL IN ELECTRIC TRANSMISSION AND DISTRIBUTION SYSTEMS RIGHT-OF-WAY 64-06 A10-05522
- TRANSMISSION LINES, TOWERS
GUYED PORTAL TYPE STEEL TOWERS FOR 220 KV ELECTRIC LINES FOR CONVERSION TO 400 KV 64-06 A10-05305
- TRANSMISSION NETWORKS
FILTERS FOR SUPPRESSING HARMONICS CAUSED BY CONVERTERS IN INTERCONNECTED A-C AND D-C ELECTRIC TRANSMISSION NETWORKS 64-06 A10-05303
- CALCULATION OF DRIVING-POINT AND TRANSFER IMPEDANCES FOR VARYING NETWORK CONFIGURATIONS OF ELECTRIC TRANSMISSION SYSTEMS 64-06 A10-05317
- NEW METHOD OF LOSS CALCULATION IN HIGH VOLTAGE ELECTRIC TRANSMISSION SYSTEMS 64-06 A10-05323
- TRANSMITTERS, TELEMETRY
UHF TELEMETRY TRANSMITTER AND POWER SUPPLY 64-06 A36-05929
- TRANSPORTATION, ELECTRIC TRANSFORMERS
DESIGN OF LARGE ELECTRIC TRANSFORMERS FOR REDUCED SIZE, LOWER LOSSES AND BETTER TRANSPORTABILITY 64-06 A04-05309
- TUNNELS, ILLUMINATION
SODIUM-VAPOR HIGHWAY LIGHTING IN JAPAN 64-06 A12-05518
- TWIN-T NETWORKS
TUNED DETECTORS USING TWIN-T CIRCUIT BASED ON TRANSISTOR AMPLIFIERS 64-06 A25-05921

ULTRASONICS

FISH DETECTION AND RECORDING FOR TRAWLERS USING
ULTRASONIC METHODS 64-06 A35-05527
ULTRASONIC WAVE AMPLIFICATION IN CADMIUM SULFIDE
PIEZOELECTRIC CRYSTALS 64-06 A35-05901
ULTRASONIC TESTING
ULTRASONIC TESTING OF GUIDED MISSILE BOOSTER
ROCKETS 64-06 A35-05526

VARACTORS

MICROWAVE SEMICONDUCTOR CONTROL DEVICES
64-06 A24-05529
UHF TELEMETRY TRANSMITTER AND POWER SUPPLY
64-06 A36-05929

VARIABLE RESISTORS

DESIGN AND FABRICATION OF OVONIC THRESHOLD
SWITCHES FROM SEMICONDUCTORS WITHOUT JUNCTION
64-06 A04-05327

VEGETATION

CHEMICAL VEGETATION CONTROL IN ELECTRIC
TRANSMISSION AND DISTRIBUTION SYSTEMS
RIGHT-OF-WAY 64-06 A10-05522

VIBRATION, BUS CONDUCTORS

ANALYSIS OF VIBRATION AND ELECTROMAGNETIC STRESSES
IN ELECTRIC BUS BARS 64-06 A04-05512

VOLTAGE DISTRIBUTION

VOLTAGE DISTRIBUTION AND TESTING OF CAPACITANCE
CONTROLLED CIRCUIT BREAKERS
64-06 A06-05513

VOLTAGE MULTIPLIERS

VOLTAGE MULTIPLICATION FOR HIGH VOLTAGE
ELECTROSTATIC PULSE GENERATORS BY VOLTAGE
REVERSAL 64-06 A08-05310

VOLTAGE REGULATORS

RECTIFIER AND ERROR-DETECTOR USING SEMICONDUCTOR
DIODES FOR AUTOMATIC VOLTAGE REGULATORS OF
ALTERNATORS 64-06 A06-05918
ANALYSIS OF TRANSISTOR SERIES REGULATORS FOR POWER
SUPPLIES, IN TERMS OF HYBRID PARAMETERS
64-06 A27-05707
TRANSISTOR VOLTAGE REGULATOR FOR PRESSURE
TRANSDUCERS 64-06 A27-05924
VOTER CIRCUITS
ANALOG INTEGRATED FAIL-OPERATIVE VOTER CIRCUITS IN
AUTOMATIC FLIGHT CONTROL 64-06 A37-05912

WAVEFORMS

BANDWIDTH CONSIDERATIONS AND NONPERIODIC SAMPLING
OF TIME DIVISION MULTIPLEXED SIGNALS USED IN
TELEMETRY 64-06 A36-05917

WAVEGUIDES

TRANSMISSION MODES OF SURFACE WAVES ON ANISOTROPIC
DIELECTRICS WITH EXPERIMENTAL DETERMINATION OF
APPARENT REFRACTIVITY OF SUCH WAVEGUIDE
STRUCTURES 64-06 A30-05712
SIMULATION OF MICROWAVE WAVEGUIDES USING PYROLYTIC
GRAPHITE AND STUDY OF WAVE PROPAGATION IN KARP
LINE MODEL 64-06 A30-05907

WAVE PROPAGATION

TRANSMISSION MODES OF SURFACE WAVES ON ANISOTROPIC
DIELECTRICS WITH EXPERIMENTAL DETERMINATION OF
APPARENT REFRACTIVITY OF SUCH WAVEGUIDE
STRUCTURES 64-06 A30-05712
SIMULATION OF MICROWAVE WAVEGUIDES USING PYROLYTIC
GRAPHITE AND STUDY OF WAVE PROPAGATION IN KARP
LINE MODEL 64-06 A30-05907

AUTHOR INDEX

ABBOTT, R E-----	64-06	A10-05522	HULTSTRAND, K A-----	64-06	A08-05326
AINSWORTH, J D-----	64-06	A10-05303	ILICETO, F-----	64-06	A10-05303
AMBROZY, A-----	64-06	A27-05521	IVANOV, S A-----	64-06	A25-05531
ANDREOTTI, J R-----	64-06	A03-05507	KEAY, C S L-----	64-06	A30-05922
APPUN, J-----	64-06	A03-05514	KERR, H W-----	64-06	A04-05309
ARNAUODOVA, M-----	64-06	A10-05305	KHACHATRYAN, V S-----	64-06	A10-05317
ASHBY, A T-----	64-06	A26-05927	KING, J-----	64-06	A37-05925
AUDEBERT, M-----	64-06	A37-05710	KIRSTEIN, P T-----	64-06	A24-05905
BASS, P-----	64-06	A33-05705	KISS, W-----	64-06	A25-05911
BENIN, V L-----	64-06	A04-05318	KISS, W-----	64-06	A25-05926
BLACKBURN, J L-----	64-06	A10-05504	KLUFVER, J W-----	64-06	A25-05906
BLOTEKJAER, K-----	64-06	A35-05901	KNUDSEN, N-----	64-06	A10-05301
BOLLER, F-----	64-06	A18-05515	KOJIMA, K-----	64-06	A03-05312
BORNE, J-----	64-06	A37-05710	KRAHN, H-J-----	64-06	A30-05907
BOUSQUET, H-----	64-06	A08-05324	KULDA, J-----	64-06	A02-05325
BRUNNER, D L-----	64-06	A04-05314	LAFUSE, H G-----	64-06	A29-05913
CHAUVIERRE, M-----	64-06	A33-05711	LAHR, J-----	64-06	A03-05514
CHILES, W H-----	64-06	A29-05913	LAISHLEY, F H-----	64-06	A25-05920
CLARK, A P-----	64-06	A36-05702	LEVY, M W-----	64-06	A10-05520
CLULEY, J C-----	64-06	A06-05918	LUBELFELD, J-----	64-06	A32-05908
COLLINS, D J-----	64-06	A27-05924	LYDICK, H W-----	64-06	A10-05302
COOK, C E-----	64-06	A34-05902	MAEKAWA, Z-----	64-06	A08-05311
COREY, C E-----	64-06	A10-05523	MANSER, A W-----	64-06	A13-05506
COTA, E A-----	64-06	A25-05528	MEINDL, J D-----	64-06	A25-05911
CZEKAJEWSKI, J-----	64-06	A31-05916	MEINDL, J D-----	64-06	A25-05926
DAKIN, T W-----	64-06	A03-05313	MINEV, N-----	64-06	A10-05305
DELL, R-----	64-06	A13-05506	MOORE, J F-----	64-06	A10-05522
DEMONET, J-----	64-06	A21-05709	MOREINES, H-----	64-06	A37-05912
DINELEY, J L-----	64-06	A08-05308	MORTENSON, K E-----	64-06	A24-05529
DOWNS, N-----	64-06	A36-05929	MUNIER, J-----	64-06	A30-05712
DUFLOS, J-----	64-06	A25-05713	NOMURA, S-----	64-06	A12-05518
EASTMAN, R-----	64-06	A09-05525	PAIK, S F-----	64-06	A30-05907
EBERHARD, G-----	64-06	A24-05332	PALMER, S-----	64-06	A04-05309
ELDER, G R-----	64-06	A10-05523	PAL, R C-----	64-06	A04-05320
FITCH, R A-----	64-06	A08-05310	PANN, S G-----	64-06	A10-05523
FREUDENBERG, W-----	64-06	A04-05314	PAOLILLO, J-----	64-06	A34-05902
FUJII, K-----	64-06	A12-05518	PERRY, F L-----	64-06	A03-05511
GAGNE, M-----	64-06	A31-05714	PHILLIPS, K-----	64-06	A07-05524
GARDNER, J W-----	64-06	A07-05503	PINTO, J J-----	64-06	A25-05919
GIARD, J A-----	64-06	A10-05304	PITZALIS, O-----	64-06	A25-05911
GILSON, R-----	64-06	A25-05911	PITZALIS, O-----	64-06	A25-05926
GILSON, R-----	64-06	A25-05926	POLYAKOV, V P-----	64-06	A06-05319
GLOVER, K J-----	64-06	A08-05308	POMOT, C-----	64-06	A30-05712
GOODRICH, F G-----	64-06	A10-05303	POOLE, S-----	64-06	A36-05917
GOUDIN, R-----	64-06	A37-05710	PURNHAGEN, T G-----	64-06	A32-05908
GRAY, D A-----	64-06	A36-05701	QUATE, C F-----	64-06	A35-05901
GRAY, R E-----	64-06	A30-05922	RADL, Z-----	64-06	A03-05510
HARRIS-MADDOX, B-----	64-06	A35-05526	RANDINO, J P-----	64-06	A03-05507
HARTMANN, O-----	64-06	A13-05509	RAYUSHKIN, V A-----	64-06	A04-05318
HASLETT, R W G-----	64-06	A35-05527	ROBERT, J-----	64-06	A08-05322
HAUSER, J R-----	64-06	A24-05910	ROBINSON, R H-----	64-06	A08-05307
HAYNES, J L-----	64-06	A36-05328	ROGERS, J-----	64-06	A37-05925
HAYS, J B-----	64-06	A29-05915	ROMANOVSKII, YU M-----	64-06	A25-05531
HEGNER, H R-----	64-06	A26-05927	ROWE, H E-----	64-06	A29-05903
HEIGHTMAN, D W-----	64-06	A33-05704	ROWE, H E-----	64-06	A29-05904
HEJHALL, R C-----	64-06	A25-05928	ROZHANSKII, L L-----	64-06	A04-05318
HOLT, A G J-----	64-06	A25-05703	RUBISOV, G V-----	64-06	A08-05316
HOPKIN, P R-----	64-06	A35-05527	RUSSELL, A-----	64-06	A37-05706
HOPKIN, P R-----	64-06	A35-05527			
HORNSBY, J S-----	64-06	A24-05905			
HOWELL, V T S-----	64-06	A08-05310			

AUTHOR INDEX

SASS, A R-----	64-06	A07-05330	THOMAS, F-----	64-06	A37-05912
SAVAGE, W R-----	64-06	A31-05333	THOMASSON, D W-----	64-06	A37-05708
SCHREIER, S-----	64-06	A03-05321	TIETZE, C-----	64-06	A13-05509
SHAIFER, T R-----	64-06	A26-05927	TOMIYAMA, T-----	64-06	A09-05519
SHAW, J L-----	64-06	A03-05511	TOUZIN, M-----	64-06	A31-05714
SHEARER, J F-----	64-06	A04-05329	TOVE, P A-----	64-06	A31-05916
SHEPHARD, A P-----	64-06	A04-05501	TRESHCHEV, I I-----	64-06	A08-05315
SINCLAIR, W D-----	64-06	A04-05502			
SLAMECKA, E-----	64-06	A06-05513	VAN SUTPHIN, B-----	64-06	A36-05929
SLETTEN, A M-----	64-06	A03-05313	VERSTER, T C-----	64-06	A24-05909
SMITH, B H-----	64-06	A30-05907	VOLKOVA, E A-----	64-06	A08-05316
SNAZELL, G E-----	64-06	A04-05502			
SOUTHWORTH, M P-----	64-06	A04-05327	WAGNER, K-----	64-06	A04-05512
SPENCER,-----	64-06	A25-05921	WEH, H-----	64-06	A08-05508
STAPLETON, C A-----	64-06	A08-05306	WEST, C P-----	64-06	A25-05923
STEFFEN, U-----	64-06	A03-05514	WHEELER, G J-----	64-06	A25-05528
STROBL, J-----	64-06	A08-05516	WILDS, R B-----	64-06	A25-05528
SUKHANOV, L A-----	64-06	A08-05316	WILSON, V C-----	64-06	A07-05914
SUNDT, E V-----	64-06	A11-05505	WINTERS, D F-----	64-06	A09-05525
SUTHERLAND, J F-----	64-06	A10-05302	WOOD, M D-----	64-06	A26-03750
SZENDY, C-----	64-06	A10-05323	WORTHINGTON, R-----	64-06	A37-05912
TANAKA, S-----	64-06	A03-05312	ZAHANOV, S-----	64-06	A10-05305
TANIBAYASHI, M-----	64-06	A12-05518	ZAKAREVICIUS, R A-----	64-06	A27-05707